SAMPO

MMM-0022
VER 1.0

29“ MULTIMEDIA MONITOR
SERVICE MANUAL
MODEL：SME-27FDL5(P)

VER 1.0

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If having any changes, do not do advanced advice.

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If having any changes, do not do advanced advice.

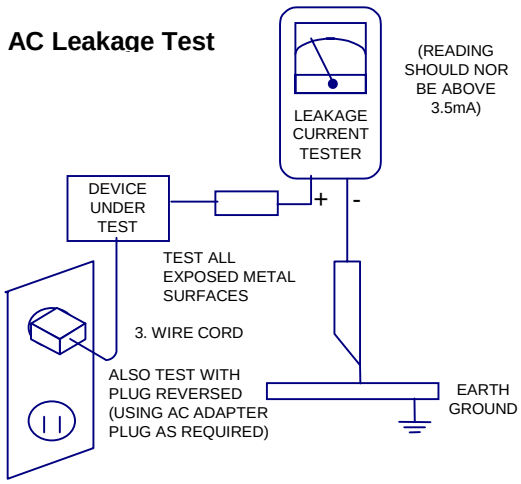
1. **Before returning an instrument to the customer,** always make a safety check of the entire instrument, including, but not limited to, the following items.

a. Be sure that no built-in protective devices are defective and/or have been defeated during servicing. (1) Protective shields are provided on this chassis to protect both the technician and the customer. Correctly replace all missing protective shields, including any removed for servicing convenience. (2) When reinstalling the chassis and/or other assembly in the cabinet, be sure to put back in place all protective devices, including, but not limited to, nonmetallic control knobs, insulating fishpapers, adjustment and compartment covers/shields, and isolation resistor/capacitor networks. **Do not operate this instrument or permit it to be operated without all protective devices correctly installed and functioning.**

b. Be sure that there are no cabinet openings through which an adult or child might be able to insert their fingers and contact a hazardous voltage, Such opening include, but are not limited to, (1) spacing between the picture tube and the cabinet mask, (2) excessively wide cabinet ventilation slots, and (3) an improperly fitted and/or incorrectly secured cabinet back cover.

c. Leakage Current Hot Check — With the instrument completely reassembled, plug the AC line cord directly into a 120V AC outlet. (Do not use an isolation transformer during this test.) Use a leakage current tester or a metering system that complies with American National Standards Institutes (ANSI) C101.1 Leakage Current for Appliances and Underwriters Laboratories (UL) 478. With the instrument AC switch first in the ON position and then in the OFF position, measure from a known earth ground (metal waterpipe, conduit, etc.) to all exposed metal parts of the instrument (antennas, handle bracket, metal cabinet, screwheads, metallic overlays, control shafts, etc.), especially any exposed metal parts that offer an electrical return path to the chassis. Any current measured must not exceed 3.5 milliamp. Reverse the instrument power cord plug in the outlet and repeat test. **ANY MEASUREMENTS NOT WITHIN THE LIMITS SPECIFIED HEREIN INDICATE A POTENTIAL SHOCK HAZARD THAT MUST BE ELIMINATED BEFORE RETURNING THE INSTRUMENT TO THE CUSTOMER.**

AC Leakage Test



2. Read and comply with all caution and safety-related notes on or inside the Monitor cabinet, on the Projection Monitor chassis, or on the picture tube.

3. **Design Alteration Warning**—Do not alter or add to the mechanical or electrical design of this unit. Design alterations and additions, including, but not limited to, circuit modifications and the addition of the items such as auxiliary audio and/or video output connections might alter the safety characteristics of this Projection Monitor and create a hazard to the user. Any design alterations or additions will void the manufacturer's warranty and will make you, the service, responsible for personal injury or property damage resulting therefrom.

4. **Hot Chassis Warning** — **a.** Some Monitor chassis are electrically connected directly to one conductor of the AC power cord and may be safely serviced without an isolation transformer only if the AC power plug is inserted so that the chassis is connected to the ground side of the AC power source. To confirm that the AC power plug is inserted correctly, with an AC voltmeter measure between the chassis and a known earth ground. If a voltage reading in excess of 1.0V is obtained, remove and reinsert the AC power plug in opposite polarity and again measure the voltage potential between the chassis and a

known earth ground. **b.** Some Monitor chassis normally have 85V AC (RMS.), between chassis and earth ground regardless of the AC plug polarity. These chassis can be safely serviced only with an isolation transformer inserted in the power line between the receiver and the AC power source, for both personnel and test equipment protection. **c.** Some Projection Monitor chassis have a secondary ground systems in addition to the main chassis ground. This secondary ground system is not isolated from the AC power line. The two ground system are electrically separated by insulating material that must not be defeated or altered.

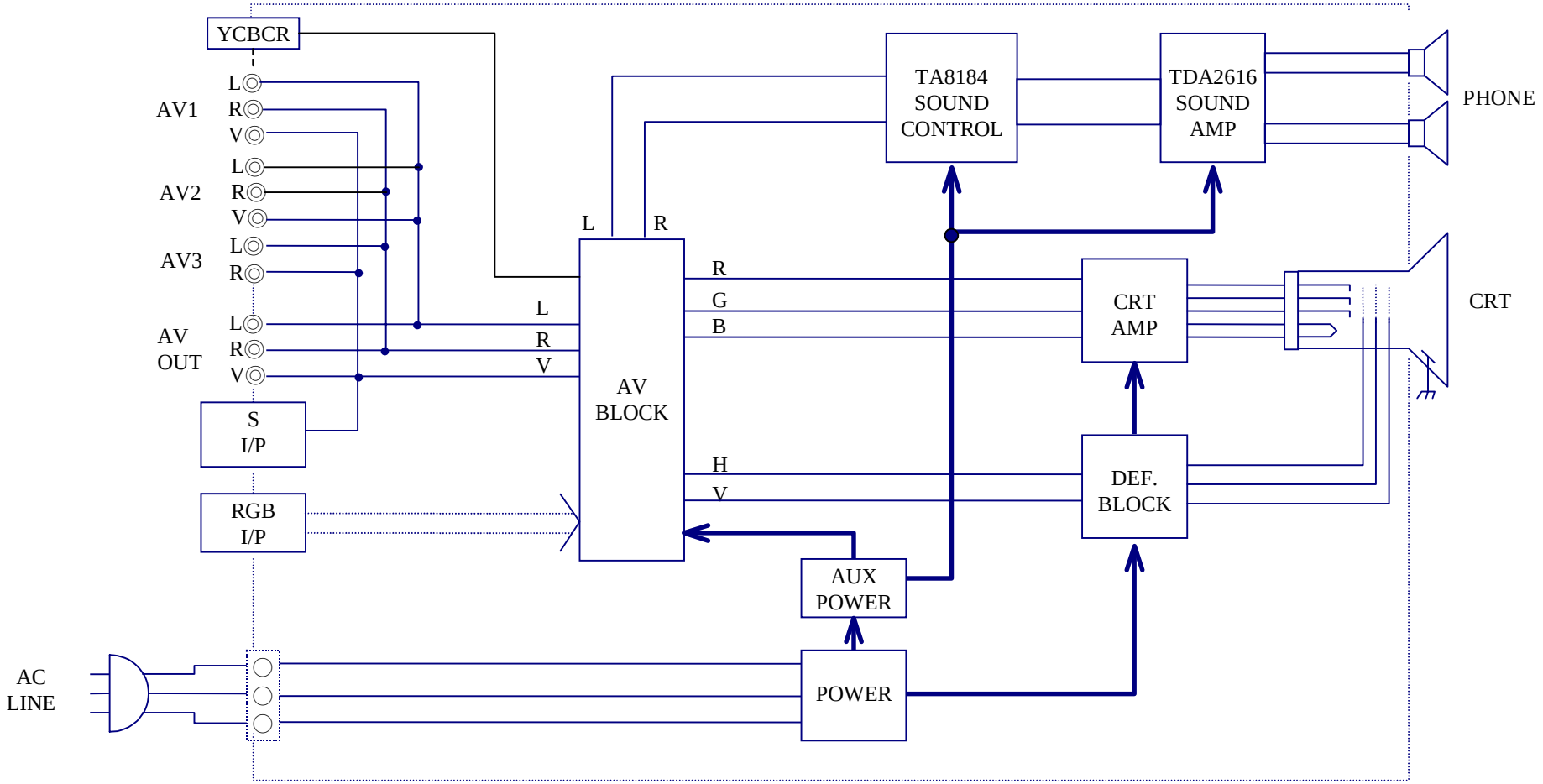
5. Observe original lead dress. Take extra care to assure correct lead dress in the following areas: **a.** near sharp edges, **b.** near thermally hot parts—be sure that leads and components do not touch thermally hot parts, **c.** the AC supply, **d.** high voltage, **e.** antenna wiring. Always inspect in all areas for pinched, out-of-place, or frayed wiring. Do not change spacing between components, and between components and the printed-circuit board. Check AC power cord for damage.

6. Components, parts, and/or wiring that appear to have overheated or are otherwise damaged should be replaced with components, parts, or wireing that meet original specifications. Additionally, determine the cause of overheating and/or damage and, if necessary, take corrective action to remove any potential safety hazard.

7. PRODUCT SAFETY NOTICE—Many Monitor electrical and mechanical parts have special safety-related characteristics some of which are often not evident from visual inspection, nor can the protection they give necessarily be obtained by replacing them with components rated for higher voltage, wattage, etc. Parts that have special safety characteristics are identified in this service data by shading with a ⚠ mark on schematics and by shading or a ⚠ mark in the parts list. Use of a substitute replacement part that does not have the same safety characteristics as the recommended replacement part in this service data parts list might create shock, fire, and/or other hazards.

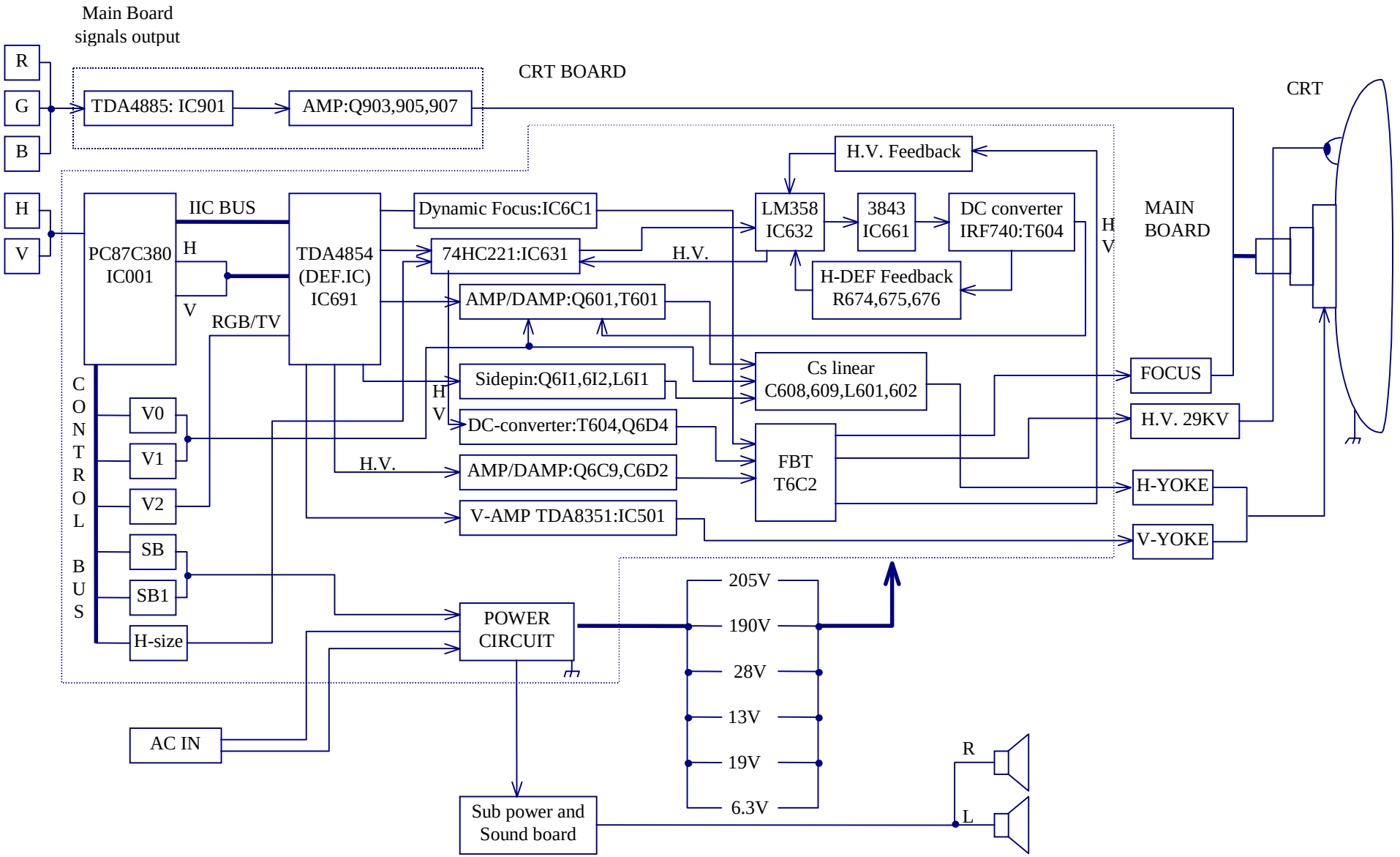
BLOCK DIAGRAM VER 1.0

Total block diagram



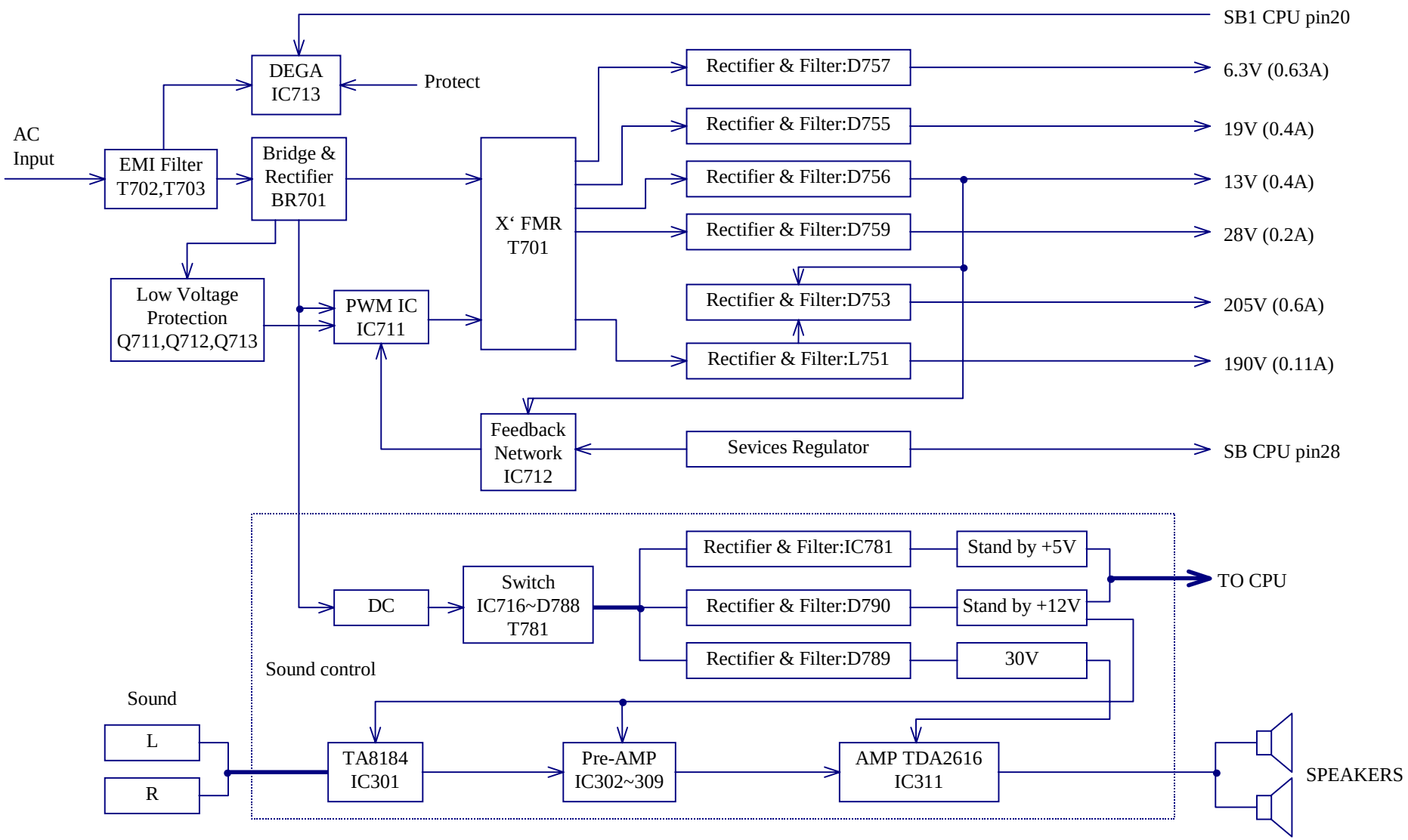
BLOCK DIAGRAM VER 1.0

Monitor DEF. & CRT AMP block diagram

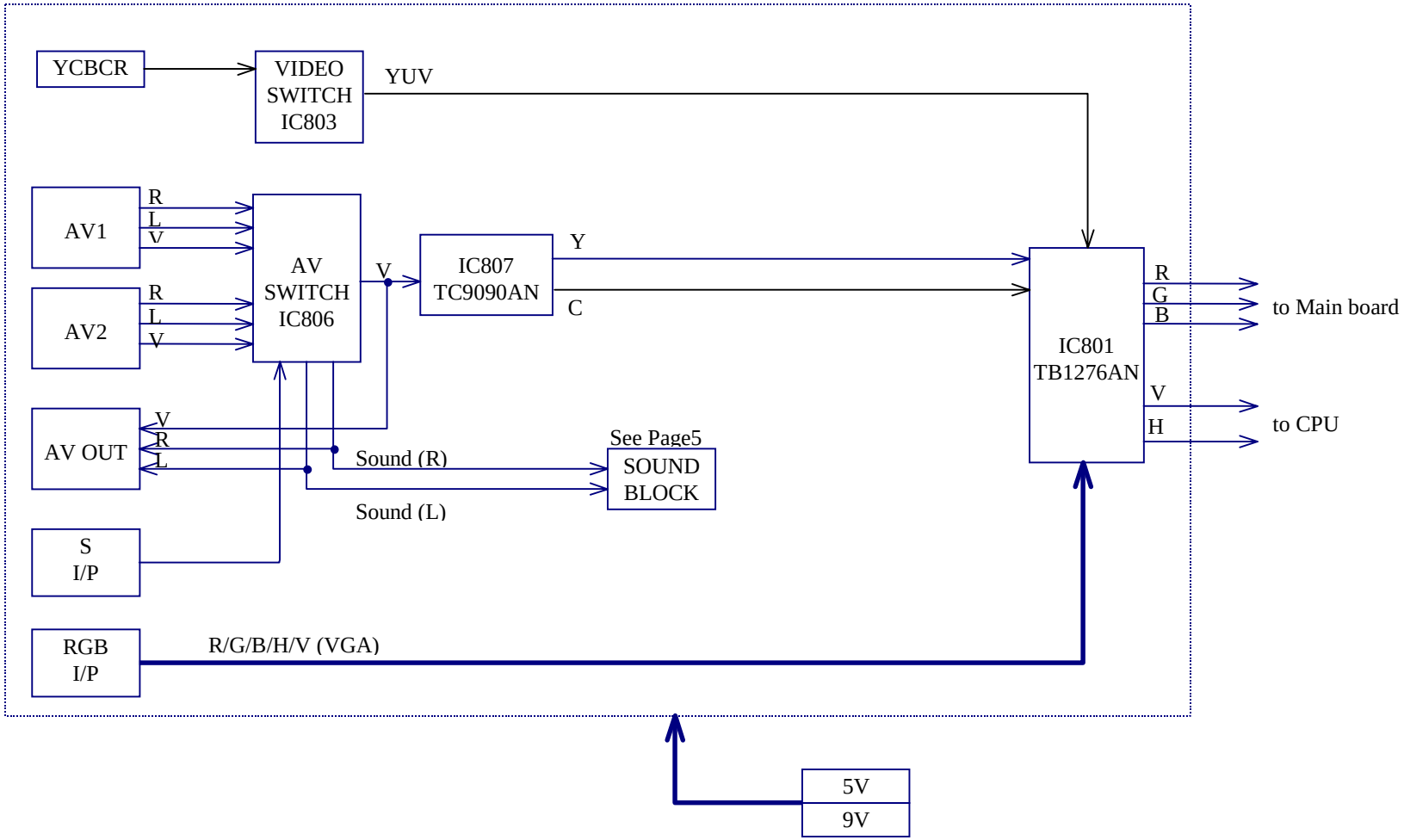


BLOCK DIAGRAM VER 1.0

Main power supply & Aux. power & sound AMP block diagram



AV. Board


YCBCR
VIDEO SWITCH IC803
YUV
AV1
R
L
V
AV2
R
L
V
AV SWITCH IC806
V
IC807 TC9090AN
Y
C
IC801 TB1276AN
R
G
B
to Main board
V
H
to CPU
AV OUT
V
R
L
See Page5
SOUND BLOCK
Sound (R)
Sound (L)
S I/P
RGB I/P
R/G/B/H/V (VGA)
5V
9V

WARNING: BEFORE SERVICING THIS CHASSIS, READ THE "X-RAY RADIATION PRECAUTION", "SAFETY PRECAUTION" AND "PRODUCT SAFETY NOTICE" ON PAGE 1 AND 2 OF THIS MANUAL.

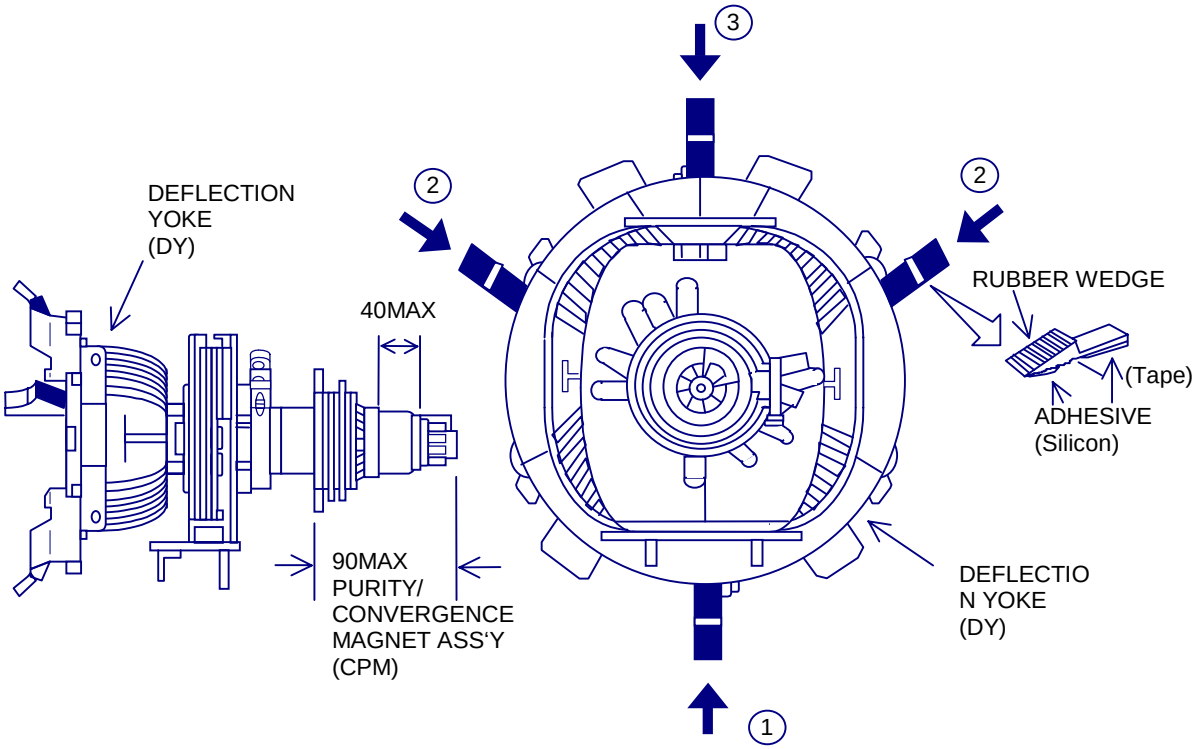
SET-UP ADJUSTMENT

- **The following adjustments should be made when a complete realignment is required or a new picture tube is installed.**
  Perform the adjustments in order as follows :

1. **Purity**
2. **Distortion (Vertical) balance**
3. **Convergence**
4. **Focus**

Note: The PURITY/CONVERGENCE MAGNET assembly and rubber wedges need mechanical positioning.

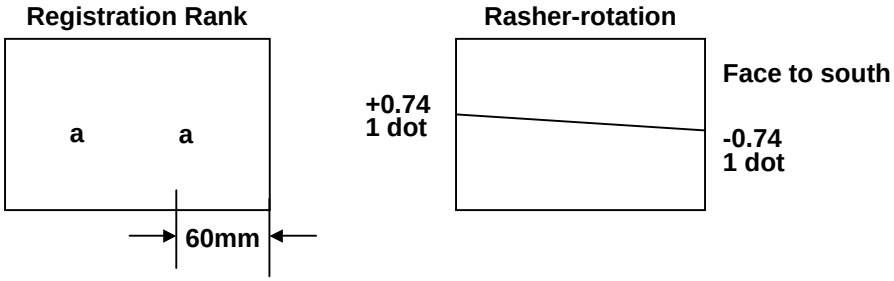
	PART DESCRIPTION	PART NO.
CPT	Picture tube, M68QDY259X02-	VBM68QDY295X02-
DY	Deflection yoke, DC29SPFM1	RDY-DC29SPFM1--



PURITY ADJUSTMENT

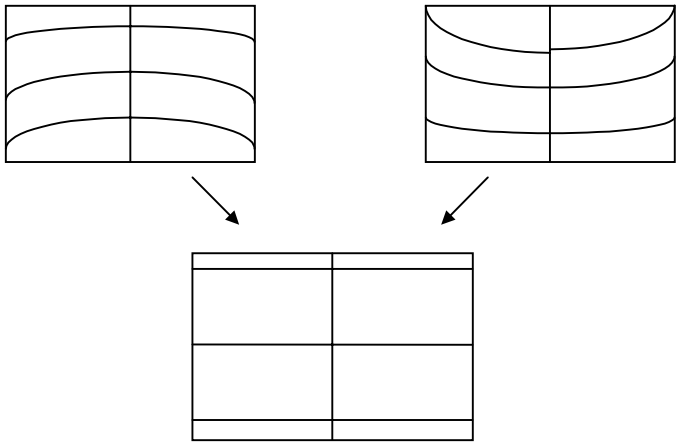
NOTE: Before attempting any PURITY ADJUSTMENTS, the receiver should be operated for at least 30 minutes at White Rasher.

1. **Demagnetize the picture tube and cabinet using a degaussing coil. (East direction)**
2. **Slowly move the DY forward or backward with moving 2 pole magnet of CPM until Green beam registration rank "a" is become**
   Tighten the clamp screw of the DY with correct rasher-rotation.



■ DISTORTION (VERTICAL) BALANCE ADJUSTMENT

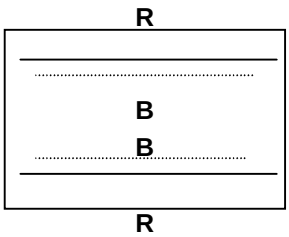
Tilt front of DY up or down to obtain best balance of Top and Bottom distortion.



■ CONVERGENCE ADJUSTMENT

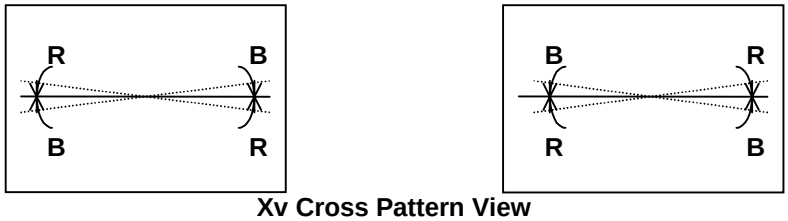
NOTE: Before attempting any convergence adjustment the receiver should be operated for at least 15 minutes.

1.Pan front of DY right or left to obtain better convergence of Yv (R or B wide pattern), and put ② WEDGE into right and left space with temporary Mounting WEDGE.



2. **Xv misconvergence adjustment:**
Adjust the Xv coil (on the deflection yoke) to correct misconvergence at both sides on screen. (See the figure below.)
Use a hexagonal tip stick (plastic) to adjust the core of coil.

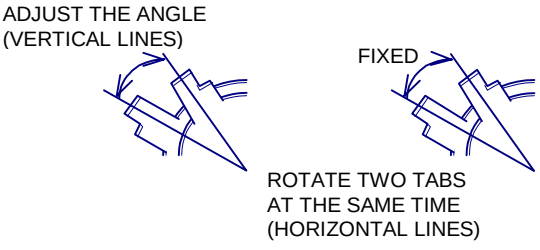
Clockwise **Counterclockwise**



Xv Cross Pattern View

3. Center convergence adjustment

1) **Receive crosshatch pattern from a color bar/pattern generator.**
2) **Adjust the BRIGHTNESS and CONTRAST Controls for well defined pattern.**
3) **Adjust two tabs of the 4-Pole Magnets to change the angle between them (See figure 3.) and superimpose red and blue vertical lines in the center area of the picture screen.(See figure 4.)**
4) **Turn the both tabs at the same time keeping the constant angle to superimpose red and blue horizontal lines at the center of the screen. (See figure 4)**
5) **Adjust tow tabs of 6-Pole Magnets to superimpose red/blue line with green one. Adjusting the angle affects the vertical lines and rotating both magnets affects the horizontal lines.**
6) **Repeat adjustments 3, 4, 5 keeping in mind red, green and blue movement, because 4-Pole Magnets and 6-Pole magnets interact and make dot movement complex.**



ADJUSTMENT OF MAGNETS

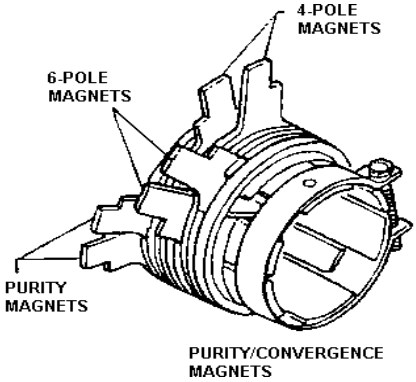


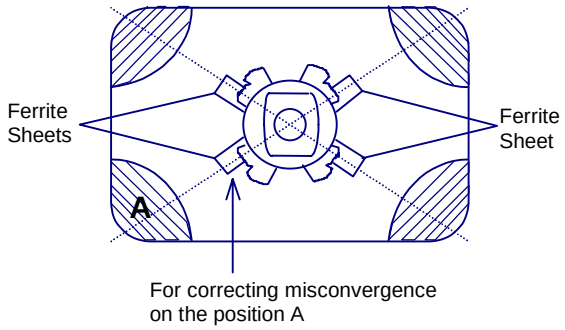
Figure 3.

Center Convergence by Convergence Magnets
Figure 4.

4. Corner convergence adjustment:
When the misconvergence is still evident on corners even though the above adjustment is done, use the ferrite sheet to correct misconvergence.

Put ferrite sheets into the space under the yoke. Decide such position that misconvergence becomes minimum, watching picture screen. (See figure below.)

Remove cover paper of ferrite sheet to stick it in the place on the tube. Put adhesive tapes on ferrite sheets to fix.



■ FOCUS ADJUSTMENT

1. **Select the RGB mode.**
2. **Receive the “H” character signal from VGA signal generator.**
3. **Adjust the FOCUS control (FBT) and DYNAMIC FOCUS VR901 watching 4 corners for the best performance of a “H” character.**
4. **Recheck overall convergence.**

FACTORY ADJUSTED METHOD AND ORDER VER1.0

A. The entry method for factory setting item.

1. Push the factory setting button on the R/C to go to factory setting mode.
2. When the monitor set is in “on” condition, pull the AC cord away. Then push the POWER SW continuously and insert the AC cord again. Do not release the POWER SW until the screen appear raster. When the above steps completed, it is in factory setting mode.

B. The selecting items of factory setting.

1. W-BALANCE ADJ. (white balance adjustment)
2. GEOMETRY ADJ. (geometry adjustment)
3. CHECK (factory check. It work for AV‘s function check)
4. AUTO RUN (No use)
5. MTS SET
6. MMM SET

note: (1) Use the MENU +/- button to entry the desired selecting item.

(2) Use the ADJ. +/- button to entry this selected item

(3) Then use MENU +/- button again to select the adjusting items)

note: Only the item 1 and 2 of the factory adjustment are used to adjust. The NO.3 item are used as the factory check.

W-BALANCE ADJ. (white balance adjusting method)

A. R.G.B.-BLACKLEVEL..... black level adjusting of white balance

B. R.G.B.-GAIN..... white level adjusting of white balance

C. SUB-CONT-RGB

D. SUB-CONT-AV

E. SUB-TINT-AV

F. SUB-COLOR-AV

G. SUB-TINT YCBCR

Step:

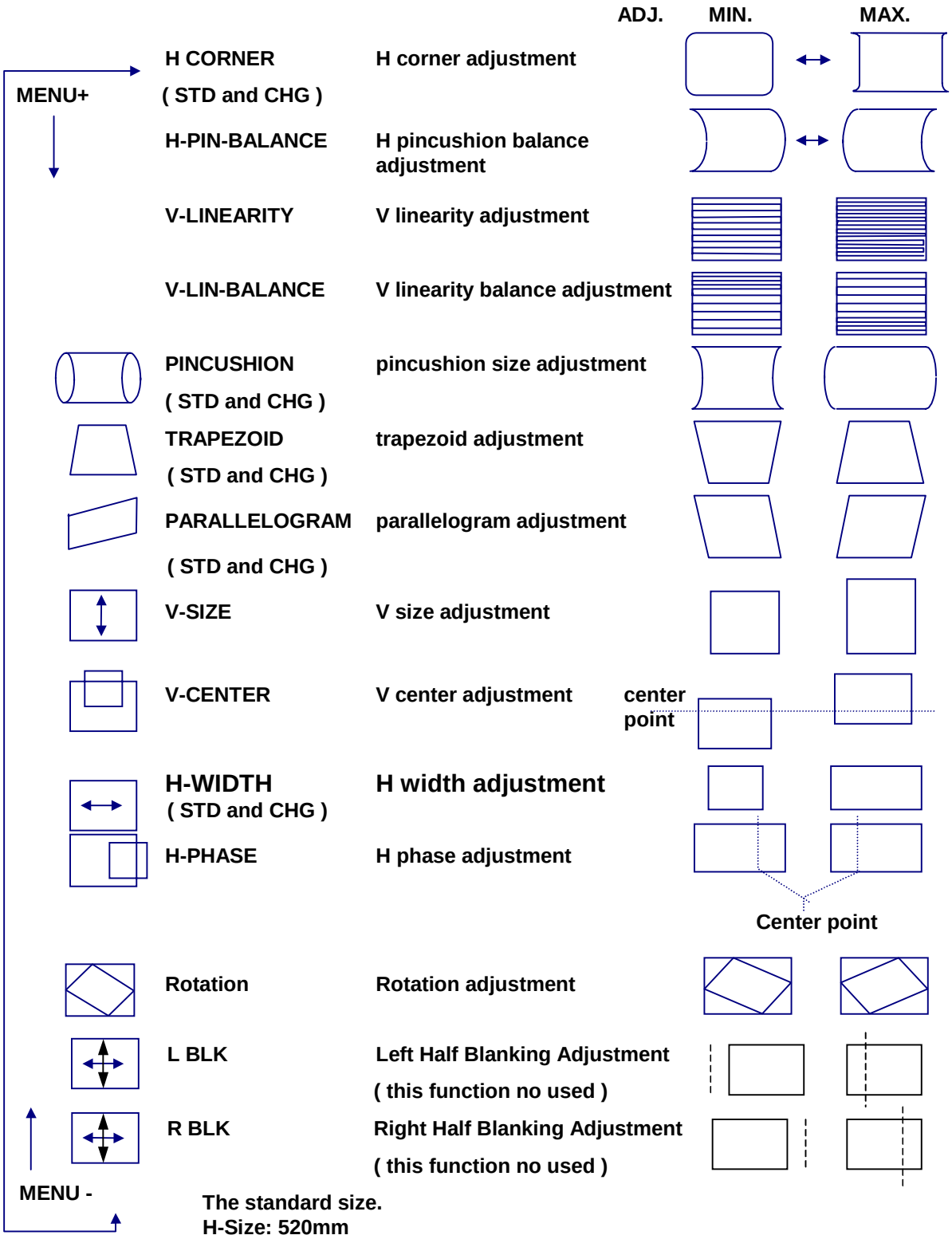
1. Set the BRIGHTNESS & CONTRAST at MAX.
2. Adjust the R.G.B.-BLACKLEVEL to min.
3. Do not adjust the background color. Then adjust the other two color to reach the standard color temperature (adjust the SCREEN VR at the same time)
4. Adjust R.B.-GAIN (G-GAIN fix at 150 to 180) to let the “x”, “y” value reach the standard color temperature. (forget the Y value preferential)
5. Adjust the SUB-CONT-RGB to let the “Y” value reach the standard value
6. Repeat item 1. to 3. to check the color temperature value of black level.

The standard color temperature.

Black level	x: 270	y: 270	Y: 0.45FL
White level	x: 270	y: 270	Y: 100FL

(100% Center block)

GEOMETRY-ADJ. ITEM



The standard size.
H-Size: 520mm
V-Size: 388mm

SERVICE MODE ADJUSTMENT
VER1.0

(1) RGB MODE

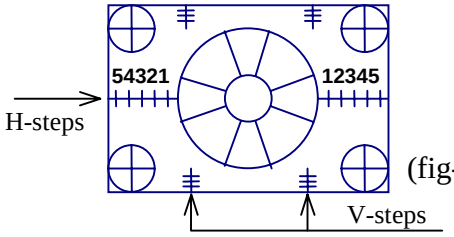
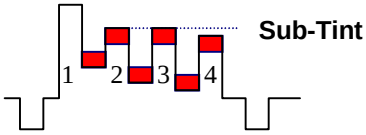
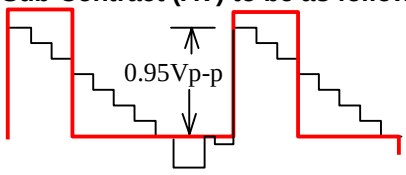
ITEM	ADJUSTMENT PROCEDURE.
1. adjustment (VR731)	1. Set to RGB mode. 2. Receive all white pattern (H:31.47K V:60Hz 640X480 mode). 3. Connect DC Volt-meter between cathode of D753 and ground. 4. Adjust VR731 for 205V± 0.5V output.
2. High voltage adjustment (VR691)	1. Connect HV meter. 2. Set to RGB mode. (H:31.47K V:60Hz 640X480 mode). 3. Receive CROSS HATCH pattern. 4. Set contrast and bright to standard.(Recall value) 5. Adjust VR691 to let the high voltage be 28.5± 0.5KV.
3. H-Center adjustment (VR601)	1. Set to RGB mode. 2. Receive CROSS HATCH pattern (H:43.27K V:85Hz 640X480 mode). 3. Adjust VR601 to let the raster be located at center of CRT.
4. Trapezoid adjustment (under factory adjustment mode)	1. Set to RGB mode.(have nine mode) 2. Receive CROSS HATCH pattern 3. Entry the second item of factory adjustment. 4. Find the trapezoid item and adjust the trapezoid to be best.
5. Geometry adjustment (under factory adjustment mode)	1. Set to RGB mode. .(have nine mode) 2. Receive CROSS HATCH pattern 3. Entry the item 2 of factory setting to select parallelogram item to adjust the parallelogram to be best.
6. V-Linear adjustment (under factory adjustment mode)	1. Set to RGB mode. 2. Receive CROSS HATCH pattern (H:31.47K V:60Hz 640X480 mode). 3. Entry item 2 and find V-Linearity adjustment of factory setting to adjust the V-linearity to be best.
7. H-size adjustment (RGB mode) (under factory adjustment mode)	1. Set to RGB mode. 2. Receive CROSS HATCH pattern (we have nine main modes, please see the specification of CHROMA-2135 generator pattern). 3. Entry the factory adjustment item 2 to choice the H-size adjustment. 4. Use the adjustment to let the H-size meet the specification

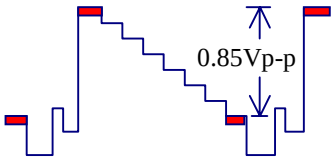
	(520mm for all main modes)

ITEM	ADJUSTMENT PROCEDURE.
8. V-size adjustment (RGB mode) (under factory adjustment mode)	1. Set to RGB mode. 2. Receive CROSS HATCH pattern (we have nine main modes, please see the specification of CHROMA-2135 generator pattern). 3. Entry the factory adjustment item 2 to choice the V-size adjustment. 4. Use the adjustment to let the V-size meet the specification (388mm for all main modes)
9. Focus adjustment	1. Set to RGB mode. 2. Receive H or @ pattern (H:43.27K V:85Hz 640X480 mode) or whole letter Picture. 3. Adjust FOCUS VR of FBT to let the picture clear both at center and corner.
10. White balance adjustment (under factory adjustment mode)	1. Set to RGB mode. (H:31.47K V:60Hz 640X480 mode). 2. Receive back ground pattern (no Video Signal). 3. Press MENU key to select bright function and set bright function to max. by pressing "+" key on remote control or volume "+" key front panel. Then press MENU key again to select contrast function. And set contrast function to max. by pressing "+" key on remote control or volume "+" key front panel. 4. Entry the item 1 of factory setting to adjust RGB-BLK LEVEL and let R.G.B.-BLK LEVEL are all minimum. 5. Adjust SCREEN VR to let the picture just bright. At this time the screen appears only one color of R or G or B. The BIAS of this color does not do any adjustment. 6. Use CA-100 to measure the color temperature. 7. Adjust the R.G.B. BLACK LEVEL of the other two color to let x=270, y=270. 8. Receive BLACK pattern. And adjust SCREEN VR to let Y=0.45± 0.2FL 9. Receive center white window single. 10. G-Gain fix in 150 to 180 and adjust R-Gain and B-Gain to let x=270± 5, y=270± 5 11. Adjust contrast (Sub-CONT-RGB) to let Y=100FL± 2FL.

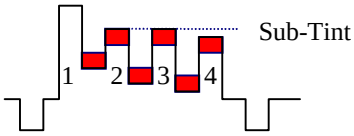
SERVICE MODE ADJUSTMENT
VER1.0

(2) AV MODE

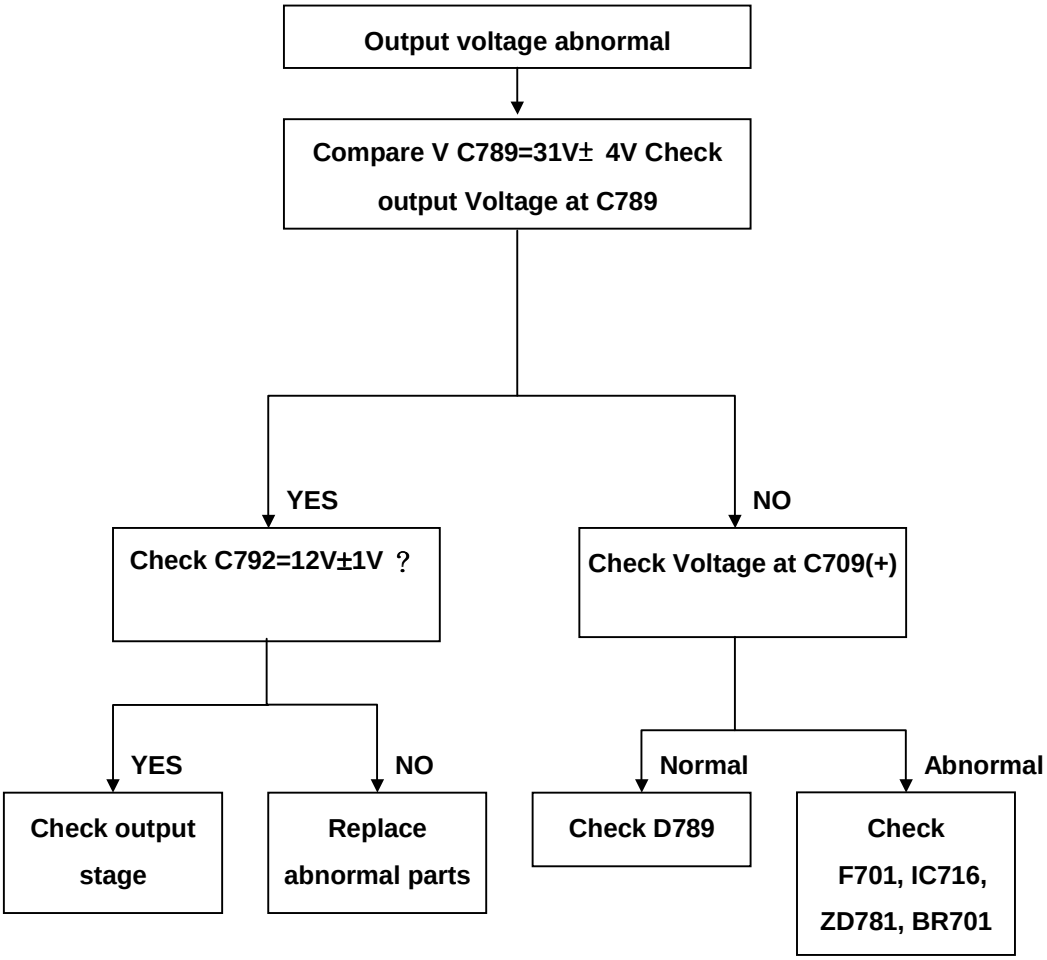
ITEM	ADJUSTMENT PROCEDURE
1 H-size adjustment (AV mode) (under factory adjustment mode)	1. Set the AV mode (AV1). 2. Receive Lion pattern.  (fig-1) digital test pattern→Lion pattern 3. The item 2 of factory setting is to adjust H-size. 4. Adjust H-Steps to be 5± 0.5 .
2 V-size adjustment (AV mode) (under factory adjustment mode)	1. Press INPUT key to select AV1. 2. Receive Lion pattern for AV1. (fig-1) 3. Go to the item 2 of factory setting is to adjust V-Size. 4. Adjust V-Steps to be 4± 0.5 .
3 Sub-Tint (Sub-Tint-AV)	1. Set the AV Mode(AV1) 2. Receive Color Bar pattern with 8 steps. 3. Connect the scope to Q813 Emitter. 4. Go to the factory setting. Select the Sub-Tint to adjust the Sub-Tint to be as follow.  5. Let the below edge of step 2 and above edge of step 3 at the same level.
4 SUB Contrast (Sub-CONT-AV) (Test point : B out (Q813 “C”)	1. Set the AV Mode (AV1) 2. Receive gray scale pattern with 8 steps. (no color) 3. Connect the scope to Q813 Emitter. 4. Go to the factory setting. Select the Sub-Contract (AV) to adjust the Sub-Contract (AV) to be as follow. 

5 SUB Color (Sub-Color-AV) **(Test point : B out (Q813 "C")**	**1. Set the AV Mode (AV1)** **2. Receive Color Bar pattern .** **3. Go to the factory setting. Select the Sub-Color to adjust the Sub-Color to be as follow.** 

(3) YCBCR MODE

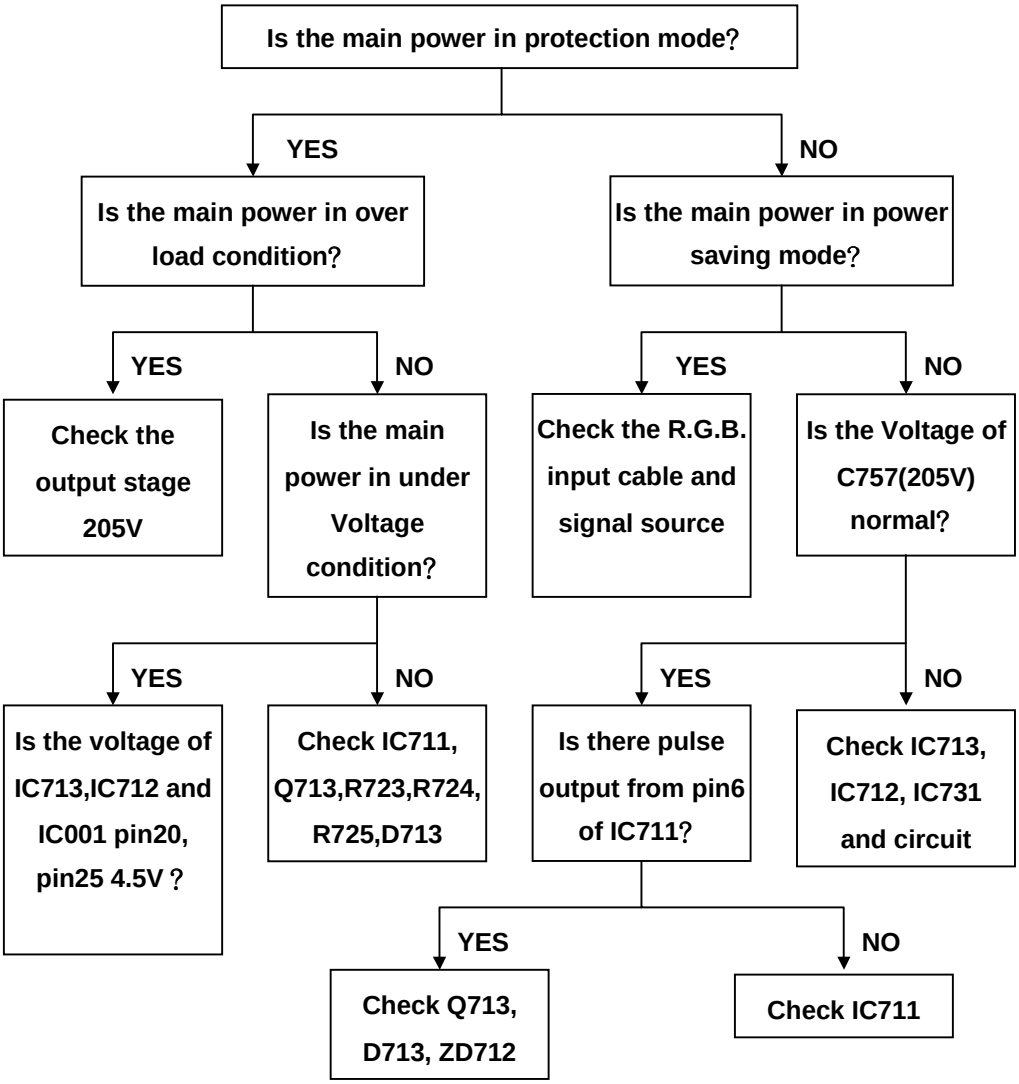
ITEM	Adjustment Procedure
1 Sub-Tint (Sub-Tint YCBCR)	**1. Set the YCBCR Mode** **2. Receive Color Bar pattern with 8 steps.** **3. Go to the factory setting. Select the Sub-Tint-YCBCR to adjust the Sub-Tint to be as follow.**  **4. Let the below edge of step 2 and above edge of step 3 at the same level.**

STAND-BY POWER



MAIN POWER

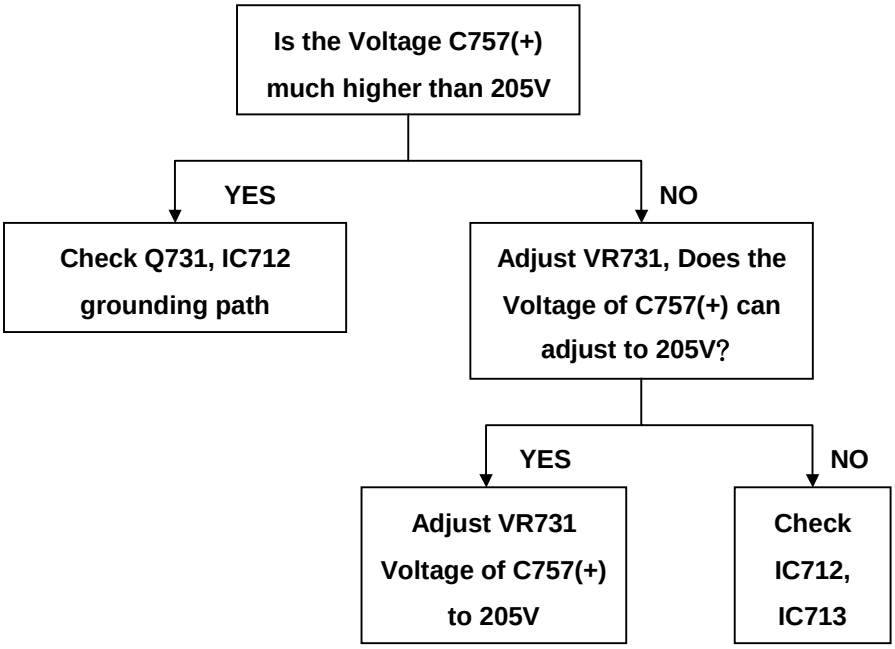
1. NO MAIN POWER



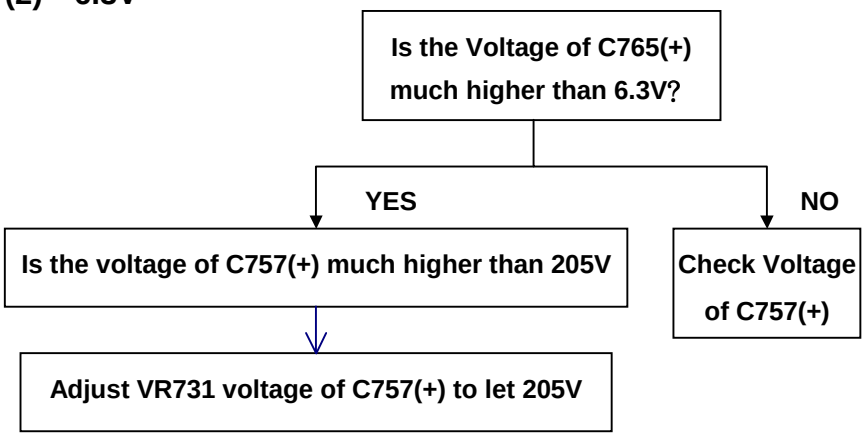
2. POOR LOAD REGULATION

3. OVER VOLTAGE

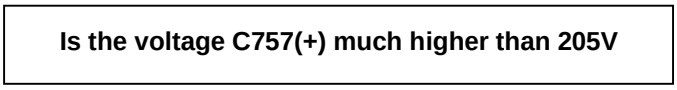
(1) 210V


Is the Voltage C757(+) much higher than 205V
YES
NO
Check Q731, IC712 grounding path
Adjust VR731, Does the Voltage of C757(+) can adjust to 205V?
YES
NO
Adjust VR731 Voltage of C757(+) to 205V
Check IC712, IC713

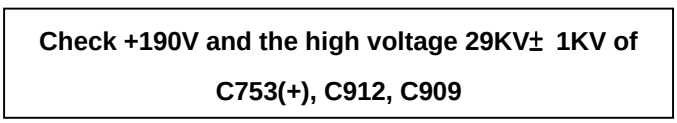
(2) 6.3V


Is the Voltage of C765(+) much higher than 6.3V?
YES
NO
Is the voltage of C757(+) much higher than 205V
Check Voltage of C757(+)
Adjust VR731 voltage of C757(+) to let 205V

4. THE VOLTAGE OF HEATER LOWER THAN 5.8V

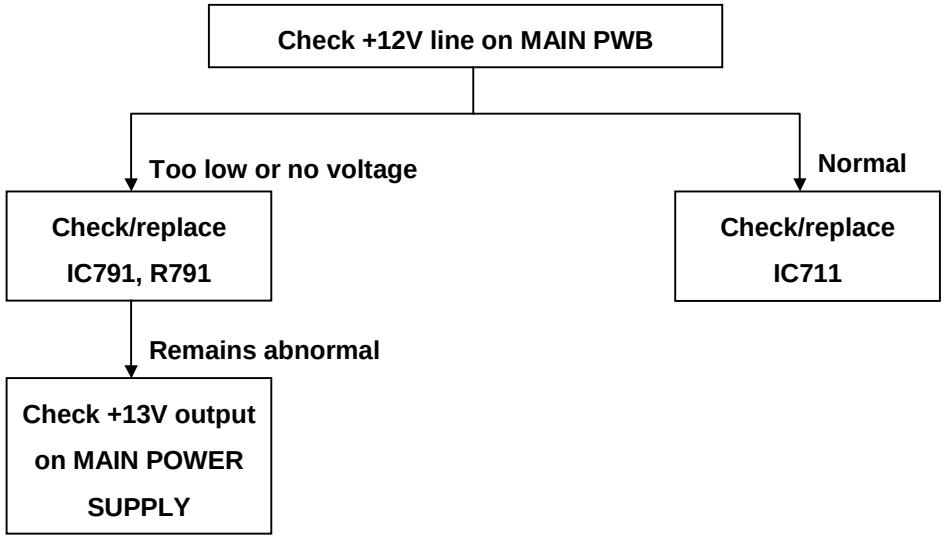


5. THE PICTURE FROM R.G.B. OUTPUT IS NOT CLEAR

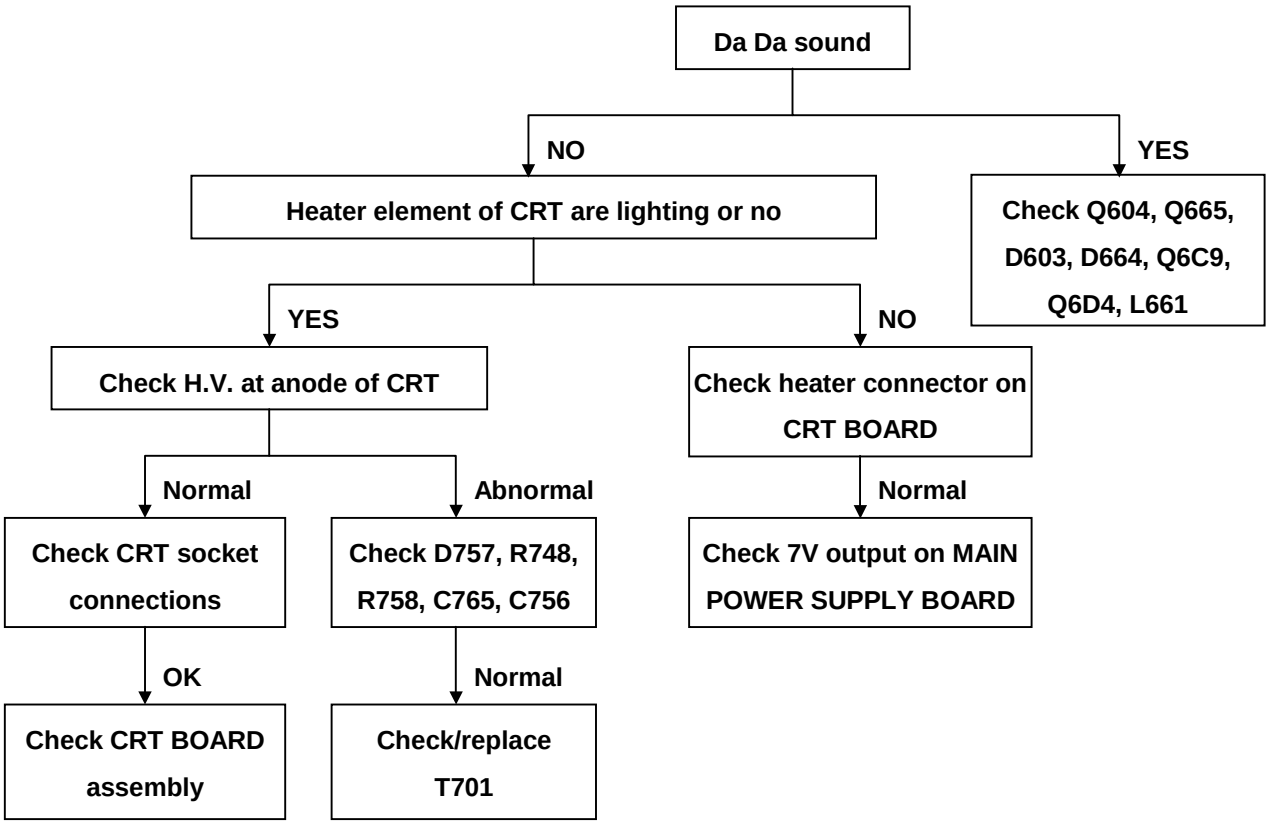


DEF.

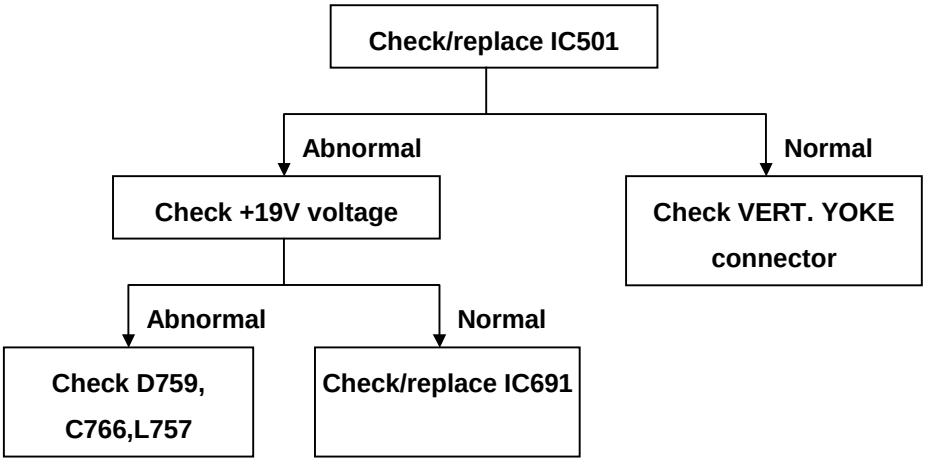
1. NO RASTER(NO SOUND)



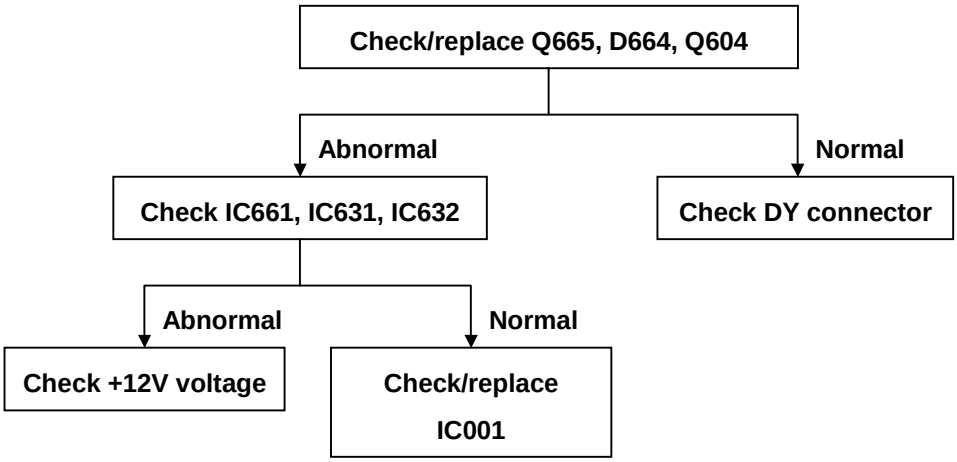
2. NO RASTER(SOUND IS NORMAL)



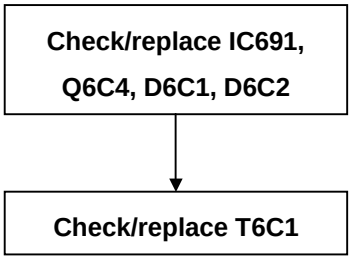
3. ONE HORIZONTAL LINE RASTER (NO VERTICAL SCAN)



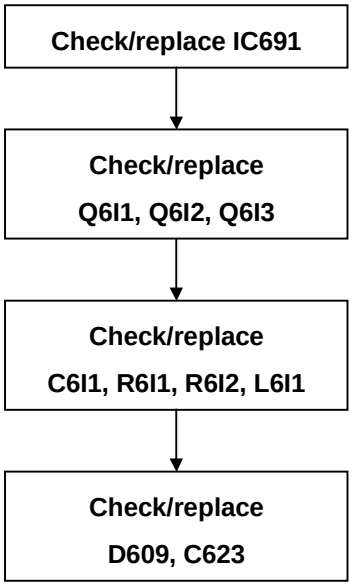
4. ONE VERTICAL LINE RASTER (NO HORIZONTAL SCAN)



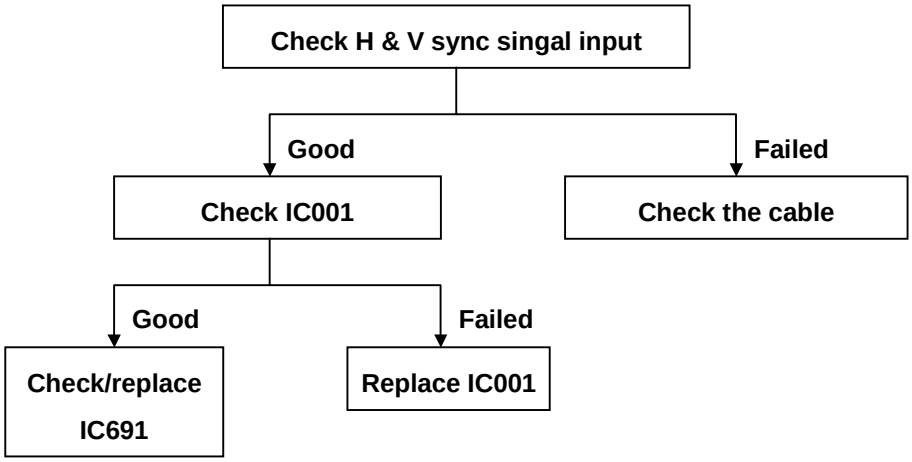
5. ABNORMAL CORNER FOCUS (ABNORMAL DYNAMIC FOCUS)



6. RASTER DISTORTION (SIDE PIN DISTORTION)

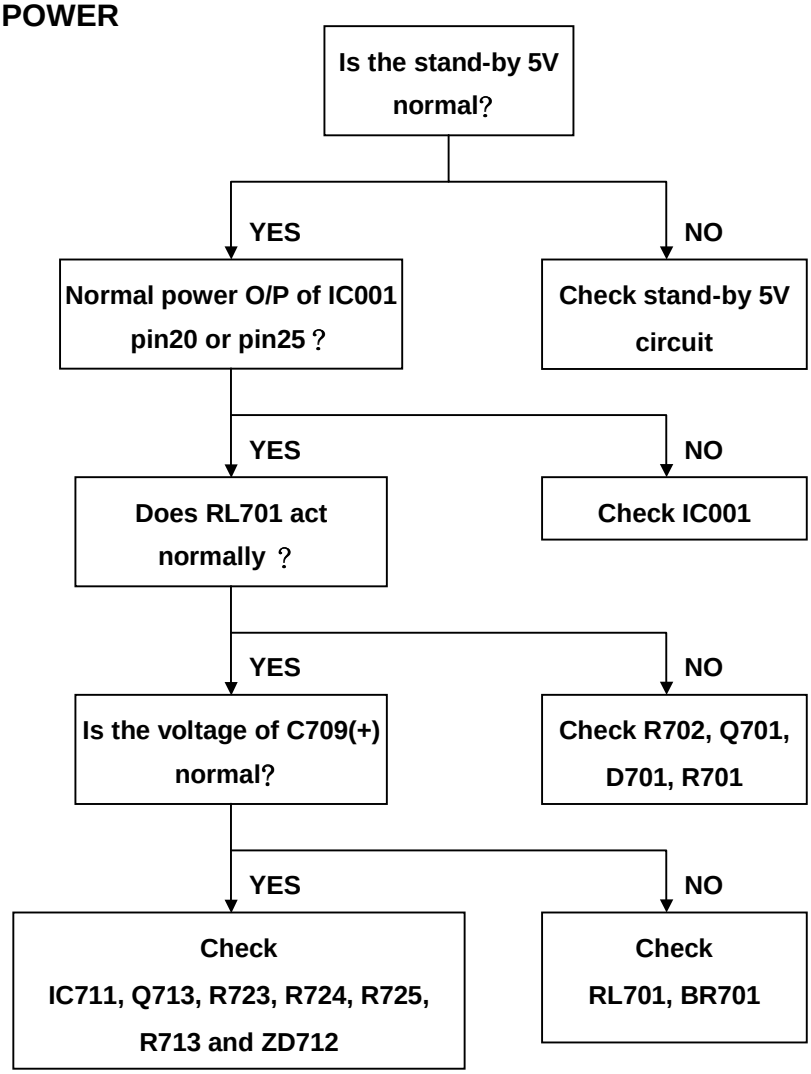


7. OUT OF HORIZONTAL/VERTICAL SYNC.

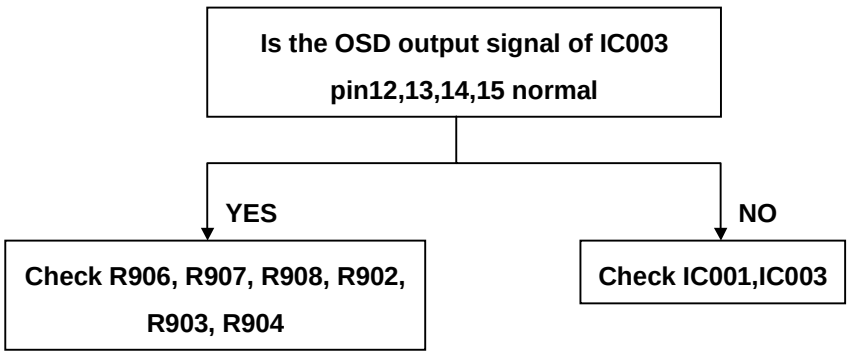


VIDEO

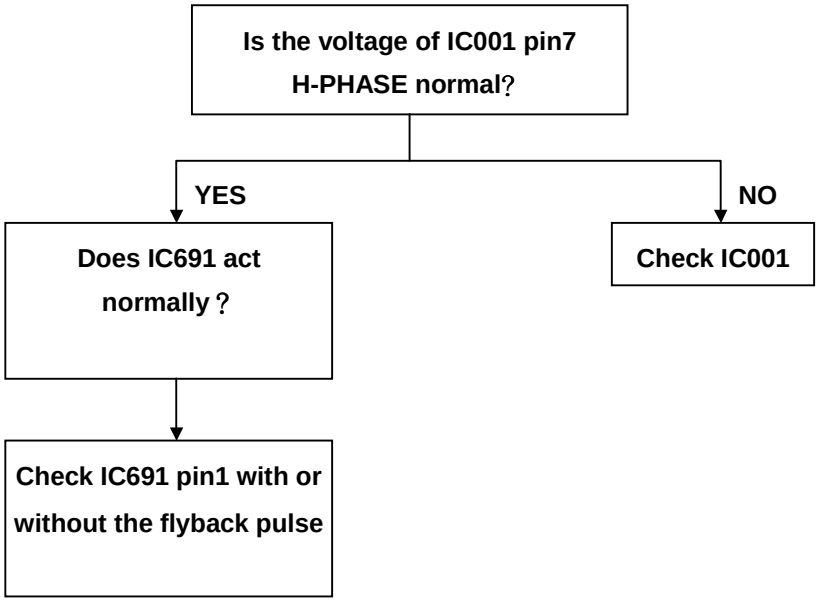
1. NO POWER



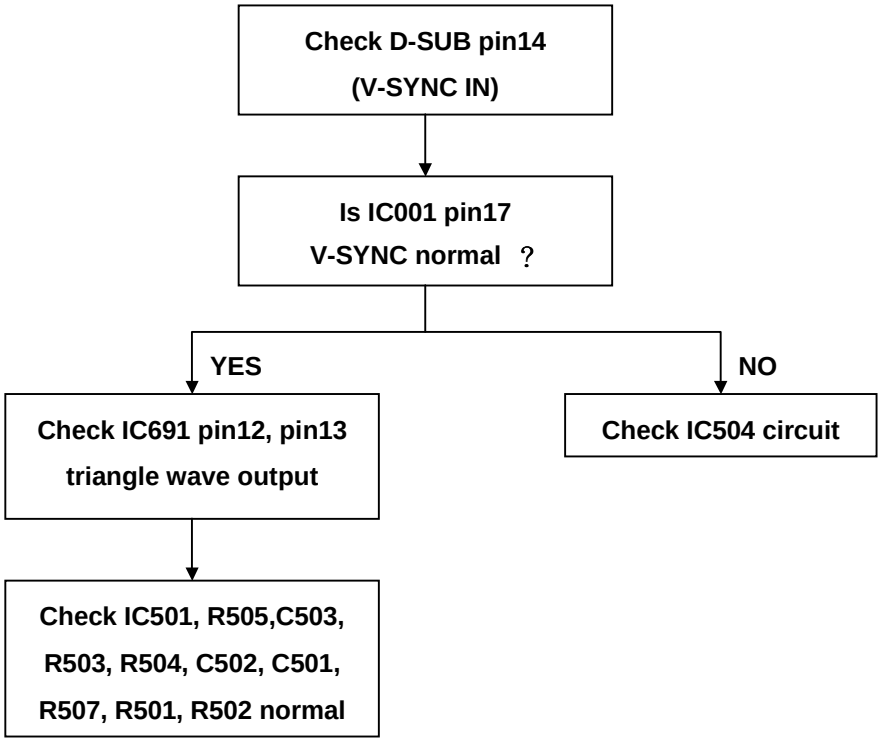
2. NO OSD (On Screen Display)



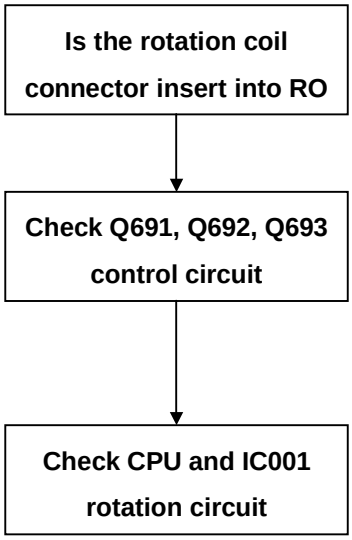
3. H-PHASE CAN NOT BE ADJUSTED.



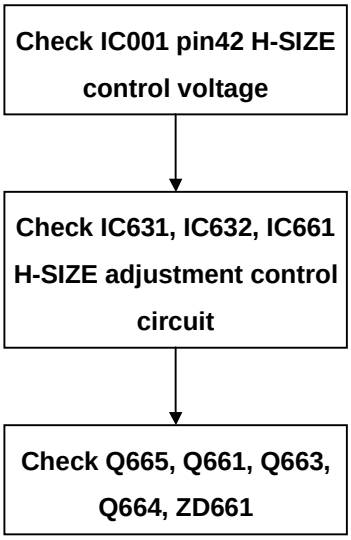
4. OUT OF VERT SYNCHRONIZATION IN RGB MODE.



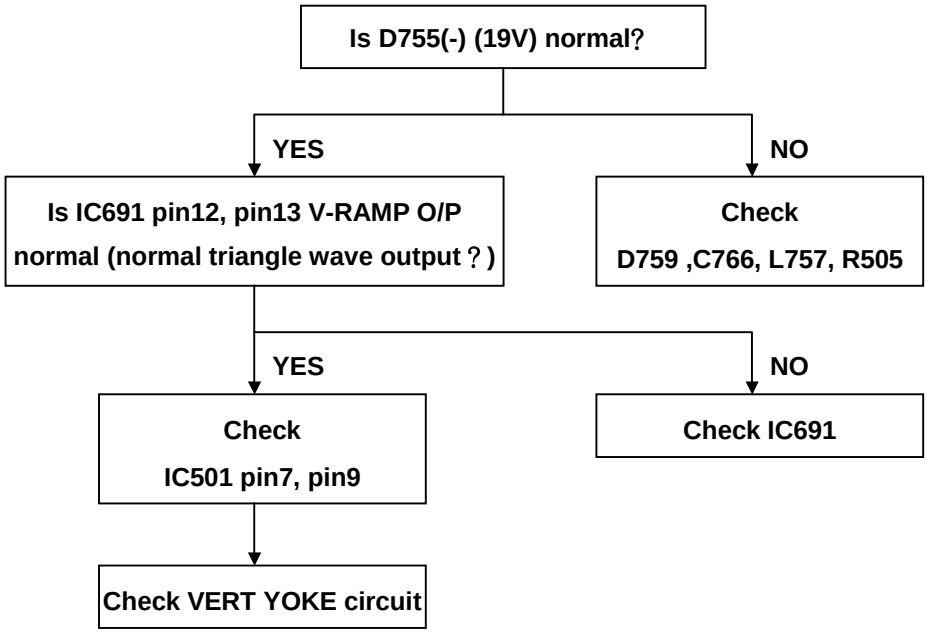
5. NO ROTATION FUNCTION


Is the rotation coil connector insert into RO
Check Q691, Q692, Q693 control circuit
Check CPU and IC001 rotation circuit

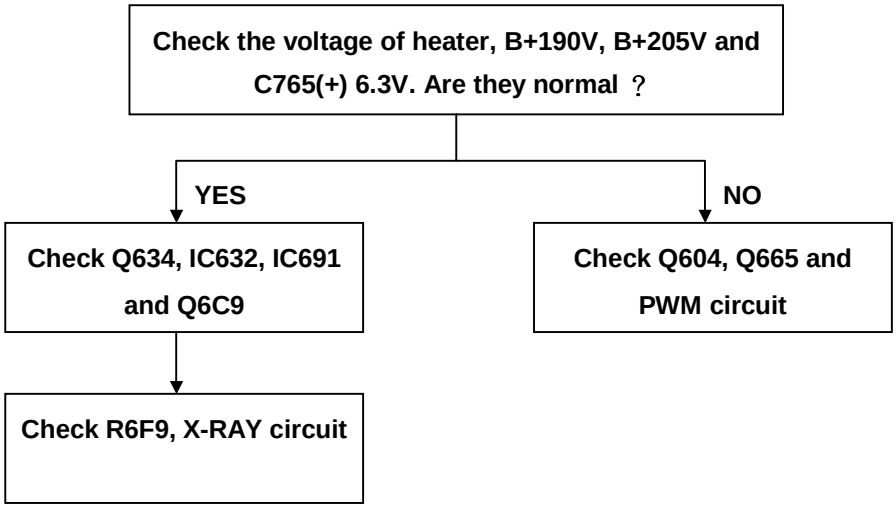
6. H-SIZE CAN NOT BE ADJUSTED


Check IC001 pin42 H-SIZE control voltage
Check IC631, IC632, IC661 H-SIZE adjustment control circuit
Check Q665, Q661, Q663, Q664, ZD661

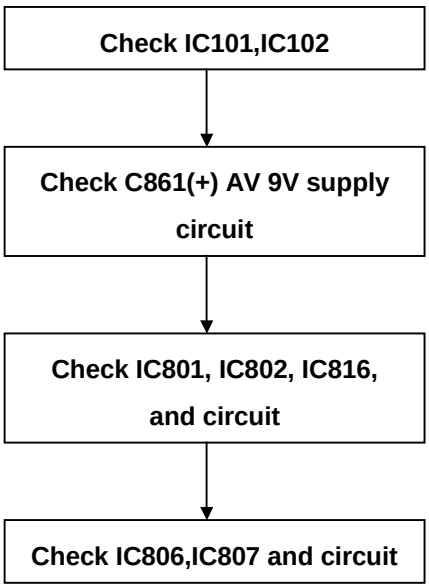
7. NO VERTICAL SCAN



8. NO PICTURE

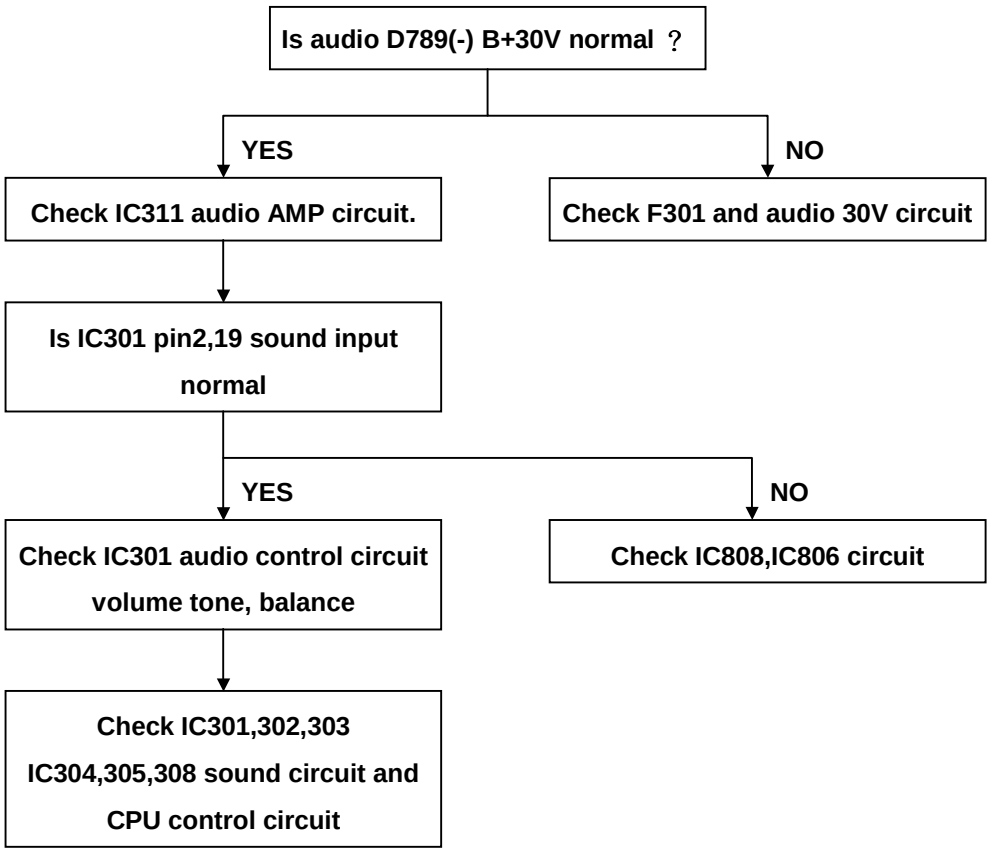

Check the voltage of heater, B+190V, B+205V and C765(+) 6.3V. Are they normal ?
YES
NO
Check Q634, IC632, IC691 and Q6C9
Check Q604, Q665 and PWM circuit
Check R6F9, X-RAY circuit

9. NO VIDEO IN AV INPUT MODE



AUDIO

1. NO AUDIO OUTPUT


Is audio D789(-) B+30V normal ?
YES
NO
Check IC311 audio AMP circuit.
Check F301 and audio 30V circuit
Is IC301 pin2,19 sound input normal
YES
NO
Check IC301 audio control circuit volume tone, balance
Check IC808,IC806 circuit
Check IC301,302,303 IC304,305,308 sound circuit and CPU control circuit

SPECIFICATION VER1.0

1. SCOPE

These specifications describe all the characteristics of the 29 inch color monitor.

2. ELECTRICAL REQUIREMENTS

2.1. Cathode ray tube

a. Tube size	**29 inch (4:3)**
b. Dot pitch	**H = 0.68 mm (center)**
c. Light transmission	**53.5% typical**
d. CRT TYPE NAME	**LG**

2.2. Power

a. Input voltage	**100 ~ 240 Vac , 50 / 60 Hz**
b. Input current	**3 A at 110 Vac / 60 Hz**
c. Inrush current	**50 A**
d. Power consumption	**200 Watts**
e. Line regulation	**95 to 145 Vac / 60 Hz ~ 190 to 255 Vac / 50Hz**
f. Stand-by	**less than 10 watts**

2.3. Input signal

2.3.1 Video signal

a. Type	**Analog**
b. Polarity	**Positive**
c. Amplitude	**0.714 V_{P-P}**
d. Input impedance	**75 ohms**
e. Dot rate	**75M Hz (Max.)**

2.3.2 Horizontal sync

a. Type	**TTL**
b. Polarity	**Positive or Negative**
c. Input impedance	**1K ohms**
d. Frequency	**RGB : 31KHz to 52KHz**
	AV,YCBCR : 15.734KHz (NTSC) / 60Hz
	: 15.625KHz (PAL) / 50Hz

2.3.3 Vertical sync

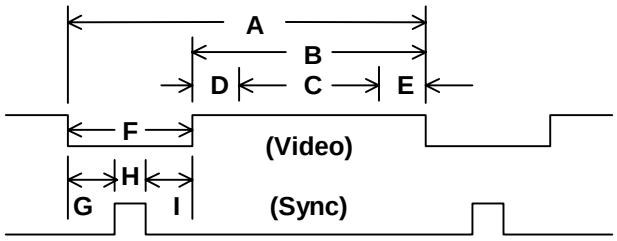
a. Type	**TTL**
b. Polarity	**Positive or negative**
c. Input impedance	**1K ohm (Min.)**
d. Frequency	**50 Hz to 120 Hz**

2.3.4 Connector type **15 pin D-SUB and RCA JACK and S-terminal**

2.3.5 Pin assignments for D-SUB connector

Pin 1 : RED	**Pin 6 : RED GND**	**Pin 11 : GND**
Pin 2 : GREEN	**Pin 7 : GREEN GND**	**Pin 12 : SDA**
Pin 3 : BLUE	**Pin 8 : BLUE GND**	**Pin 13 : H-SYNC**
Pin 4 : GND	**Pin 9 : NC**	**Pin 14 : V-SYNC**
Pin 5 : GND	**Pin 10 : GND**	**Pin 15 : SCL**

2.3.6 Preset timing chart



Item	Description :
A	Total time
B	Active display area including borders
C	Active display area excluding borders
D	Left / Top border
E	Right / bottom border
F	Blanking time
G	Front porch
H	Sync width
I	Back porch

The table below is required timings and technical description for the 29“ tube.

(H = 520 mm, V = 388 mm standard size)

Mode No.	1	2	3	4	5	6	7	8	9	
Resolution & Refresh Rate	640 480 60	640 480 72	720 400 70	640 480 66.6	800 600 60.317	800 600 56.25	640 480 85	800 600 72	1024 768 60	Hz
Pixel timing +/- .5%	39.722	31.746	35.311	33.06	25	27.8	36	50	15.385	n Sec
Horizontal visible	640	640	720	640	800	800	640	800	1024	Dots
Horizontal total	800	832	900	864	1056	1024	832	1040	1344	Dots
Horizontal front porch	16	16	18	64	40	24	56	56	40	Dots
Horizontal sync	96	40	108	64	128	72	56	120	145	Dots
Horizontal back porch	48	136	54	96	88	128	80	64	105	Dots
Hor blanking time	160	192	180	224	256	224	192	240	290	Dots
Vertical visible	480	480	400	480	600	600	480	601	768	Lines
Vertical total	525	520	449	525	628	625	509	667	806	Lines
Vertical front porch	10	1	12	3	1	1	1	1	1	Lines
Vertical sync	2	3	2	3	4	2	3	6	6	Lines
Vertical back porch	33	36	35	39	23	22	22	23	29	Lines
Vertical blanking time	45	40	49	45	28	25	26	30	36	Lines
Horizontal frequency	31.469	37.861	31.467	35	37.879	35.156	43.27	48.09	48.363	KHz
Vertical frequency	59.940	72.809	70.082	66.667	60.317	56.250	85	72	60	Hz
Vertical sync polarity	-	-	+	-	+	+	-	+	-	TTL
Hor sync polarity	-	-	-	+	+	+	-	+	-	TTL
Dot rate	25.2	31.2	28.3	30.204	40	35.97	36	50	65	MHz

2.4. Display performance requirements.
The data of display performance are measured based on the following conditions unless otherwise specified.

	a. Ambient temperature	25± 5 degree C
	b. Earth magnetic field :	H : 0.00, V : 0.4± 0.05 Gauss
	c. Warm up period	30 minutes minimum
	d. Line input voltage :	Nominal 120 Vac / 60 Hz ~ 220 Vac / 50 Hz
	e. Unit facing direction	With CRT screen facing east
	f. Viewing distance	Distance from screen is 3.5m
	g. Display mode	Test with full white pattern of mode 1 if not specified.
	h. Brightness condition	Press reloads button to set Brightness to center point and adjust contrast control to 15 FL.
	i. Heater voltage	6.2± 0.3Vdc
	j. HV Operation	28.5KV ~ 30KV
2.4.1	Maximum Resolution	1024 dots x 768 lines (non-interlace) 1280 dots x 720 lines for HDTV (non-interlace)
2.4.2	Horizontal size (Standard)	520± 6 mm (for mode 1～9)
	Vertical size (Standard)	388± 6 mm (for mode 1～9)
2.4.2.1	Horizontal size (max)	Mode 1-6 ≧ Over-scan
	Vertical size (max)	Mode 7-9 ≧ full-scan
2.4.3	Size thermal drift	Within ± 6 mm (The size drift is being compared between the range of operating and ambient temperature.)
2.4.4	Size regulation	1. Less than 7 mm (MODE 1 → MODE 6) (The size regulation is being compared the size change between the max. and min. brightness level.) 2. Less than 7 mm (MODE 7 → MODE 9) (The size regulation is being compared the size change between the recall. and min. brightness level.)
2.4.5	Maximum brightness level	
	a. Full white pattern	31± 5 FL at the screen center. (While pressing reload button to set contrast and brightness control at max.)
	b. 100% center block white pattern	100± 5 FL. (While pressing reload button to set contrast and brightness control at max.)
	c. Minimum brightness level (ALL WHITE PATTERN)	With the contrast at min and brightness at central. Less than 5 FL.
	d. Raster background	0.5 FL± 0.3 FL. (With the contrast max, brightness at max and black signal)
2.4.6	Brightness uniformity (Test with five circle mosaic pattern and set the brightness level of center circle at 15FL.)	$\frac{\text{Brightness (corner circle)}}{\text{Brightness (center)}}$ >50%

2.4.7 Linearity
(Test with cross-hatch pattern. H: 17 Line, V: 13 Line)

Less than 15% for both H & V

$$\left(\frac{X\ (max.) - X\ (min.)}{X\ (max.)} X100\%\right) \leqq 15\%$$

2.4.8 Distortions requirement

a. Total Geometric distortion (See FIG. 1)	**TOP & BOTTOM**	**≦6 mm**
	LEFT & RIGHT	**≦6 mm**
b. Barrel (See FIG. 2)	**TOP & BOTTOM**	**≦4 mm**
	LEFT & RIGHT	**≦4 mm**

2.4.9 Tilt (Raster Rotation)

Less than ± 4 mm
(The tilt is being Compared between the horizontal center line of the image with respect to that of the bezel.)

2.4.10 Misconvergence
(See FIG. 5)

Zone A: 0.8 mm (388 mm)
Zone B: 1.3 mm (Within the image area of 520 mm x 388 mm except zone A.)
Zone C: 1.7 mm (Except zone A and B.)

2.4.11 Focus
(with mode 1→mode 9) (Test with H character pattern.)

The individual dot and line of characters on the screen should be clearly distinguishable. (Setting the Cut-off raster brightness level at H pattern.)

2.4.12 CRT quality

The screen & faceplate blemishes requirement is defined based on CRT specification.

2.4.13 Color temperature
(PATTERN=ALL WHITE PATTERN.)

X : 0.270± 0.030
Y : 0.270± 0.030

2.4.14 Color tracking
(Test full white pattern.)

X : X_0± 0.030
Y : Y_0± 0.030
brightness=128,change contrast control range from 4.5 FL to max

2.4.15 Internal service controls :

HV-ADJUST (29.5± 1KV)	**H-Center**	**DC B+ ADJUST (205± 1V)**
FBT SCREEN KNOB	**FBT FOCUS**	

2.4.16 External user controls : (With OSD Control)

RGB :	BRIGHTNESS	CONTRAST	V-SIZE	H-CENTER	H-WIDTH
	H-PHASE	PINCUSHION	TRAPEZOID	PARALLELOGRAM	ROTATION
	R-GAIN	G-GAIN	B-GAIN		
AV,YCBCR:	BRIGHTNESS	CONTRAST	COLOR	TINT	SHARPNESS
	R-GAIN	G-GAIN	B-GAIN		
COMMON :	POWER	MUTE	DEGAUSS	WOOFER VOLUME	RECALL
	INPUT	BASS	TREBLE	BALANCE	
FRONT PANEL FUNCTION KEY :		VOLUME +/-		INPUT SELECT	DEGAUSS,
		MENU +/-		POWER SWITCH	

3. MECHANICAL REQUIREMENTS

3.1. Unit dimension (with base) : W (760) x H (580) x D (513)mm
Packaging dimension : W (890) x H (705) x D (700)mm

3.2. Net weight of unit : 54 Kgs

3.3. Packaging Weight 60 Kgs

4. Environmental requirements

4.1. Non-operating

a. Ambient temperature - 15 degree C to 50 degree C (5 degree F to 122 degree F)
b. Relative humidity 10% RH to 95% RH (non-condensing)
c. Altitude 10,000 feet

4.2. Operating

a. Ambient temperature 0 degree C to 40 degree C (32 degree F to 104 degree F)
b. Relative humidity 10% RH to 95% RH (non-condensing)
c. Altitude 10,000 feet

5. Reliability requirement
The MTBF needs 40000 hours (excluding tube) under operating at 25± 5 degree C (77± 41 degree F) ambient temperature also with the normal characters filled within the whole image screen.

6. Regulatory requirements

6.1. Safety requirement.
The unit shall conform to the following safety regulatory standards.

a. UL 1950 Safety of Information Technology Equipment Including Electrical Business Equipment
b. CSA 22.2 Safety of Information Technology Equipment Including Electrical
No. 950-M89 Business Equipment
c. TUV Safety of Information Technology Equipment Including Electrical
No. EN 60950 Business Equipment
EN 60065

6.2. X Radiation requirement.
The unit shall conform to the following X-ray regulatory standards and must not emit more than 0.5 mR/H of ionizing radiation under normal operation or under a fault condition.

a. DHHS 21 CFR 1020.10 Department of Health and Human Services Radiation Performance Standard; Title 21 CFR subject J, for Radiological Health (US)

6.3. Emission requirements.
The unit shall meet the EMI limits in all screen modes. For EMI testing, the unit must be filled with a screen pattern consisting of scrolling capital "H" characters also the brightness and contrast VR will be adjusted to max. level.

a. FCC Class B FCC part 15, Subpart J, Class B (US)

7. POWER MANAGEMENT:

Mode	H-sync	V-sync	Video	Power dissipation
Normal	pulse	pulse	active	normal power
Stand-by	no pulse	no pulse	no video	power off
Power saving	pulse	no pulse	blanked	less than 30 watts
	no pulse	pulse		

This monitor is Energy star compliant when used with a computer equipped with DPMS.
Note: The power indicator LED color is green in normal state, red in stand-by and yellow in power saving state.

Attachment: Internal reference specification.
The following specifications are provided to Production Engineering and Quality Assurance Departments for factory internal control only.

Item no. and contents of product specification		Customer requirements
2.4.2	Horizontal size / vertical size	520 / 388 mm± 6 mm
2.4.3	Size thermal drift	within 6 mm
2.4.4	Size regulation	within 6 mm
2.4.5	a. Max. brightness level (full white) b. Max. brightness level (100% center block white pattern)	31± 5 FL 100± 5 FL (MODE 1)
2.4.6	Brightness uniformity	greater than 50%
2.4.7	Linearity	H ≦ 15% V ≦ 15%
2.4.8	a. Geometric distortion TOP : BOTTOM : b. Barrel TOP : BOTTOM :	within 6 mm within 6 mm within 4 mm within 4 mm
2.4.9	Tilt (Raster Rotation)	within 4 mm
2.4.10	Misconvergence	within A:0.8, B:1.3, C: 1.7
2.4.11	Focus	Reference page 5
2.3.13	Color temperature	X : 0.270± 0.030 Y : 0.270± 0.030
2.3.14	Color tracking	X : X_0± 0.030 Y : Y_0± 0.030
7.	POWER MANAGEMENT : a. Power saving	 P_C < 30 watts

AV , YCBCR SECTION: (ACCORDING TO CTV RULES)
video signal compatibility：NTSC / PAL

1. Picture quality

1.1. Resolution (center)
Contrast and brightness is adjusted so that the 25% gray bar is at cut off of CRT 300 lines min.

2. Linearity # formula: (max. - min.) / max. # (AV ,YCBCR SECTION)

Vertical	**10%**	**12% max.**
Horizontal	**10%**	**12% max.**

3. Sound (tone & balance at central position)

3.1. Residual hum (at volume control max.) 500uW max.

3.2. Practical max. audio output (at 10% THD max.)

$1.3V_{P-P}$ 1K Hz input 10W min. / 7 ohm

3.3. Audio fidelity (400 Hz 0db, Corrected for emphasis characteristics)

Woofer off	**100 Hz**	**1 dB**	**3 dB**
Woofer off	**10K Hz**	**-1 dB**	**3 dB**

3.4. Sound distortion (at 250mW 1K Hz) 1% max. with LPF(15.734KHz)

4. Video and audio (full load)

4.1. Video signal output $1.0\ V_{P-P} \pm 0.2\ V_{P-P}$.
(input signal at $1.0\ V_{P-P} \pm 0.2\ V_{P-P}$)

4.2. Audio signal output $1.0\ V_{P-P} \pm 0.2\ V_{P-P}$.
(input signal at $1.0\ V_{P-P} \pm 0.2\ V_{P-P}$)

5. Total Geometric Distortion (AV ,YCBCR, SECTION)

5.1. Pincushion(FIG. 4)

Top-bottom	**3% max.**
Left-right	**3% max.**

***Pattern = crosshatch**

5.2. Trapezoid (FIG. 3)

Horizontal	**3.0% max.**
Vertical	**3.0% max.**

FIG. 1 Total Geometric Distortion:

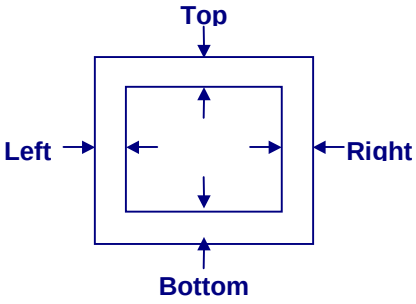


FIG. 2 Barrel:

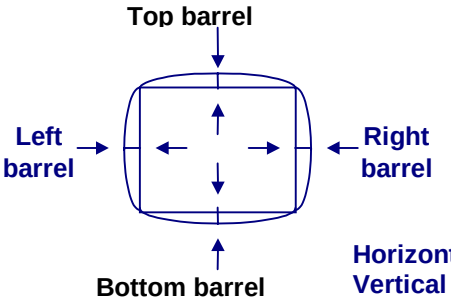
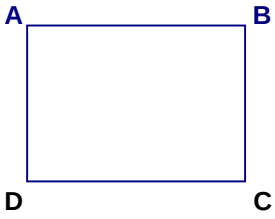
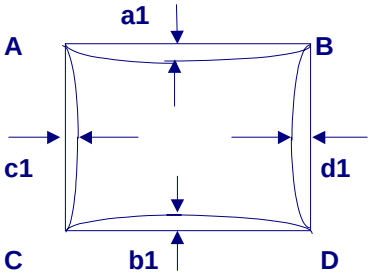


FIG. 3 Trapezoid:

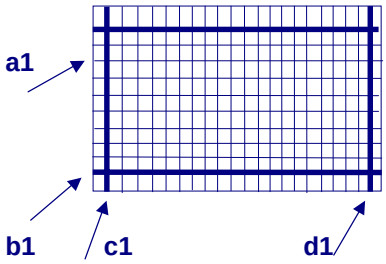


Horizontal =(AD-BC) / (AD+BC)x100
Vertical =(AB-DC) / (AB+DC)x100

FIG. 4 PINCUSHION: (AV)

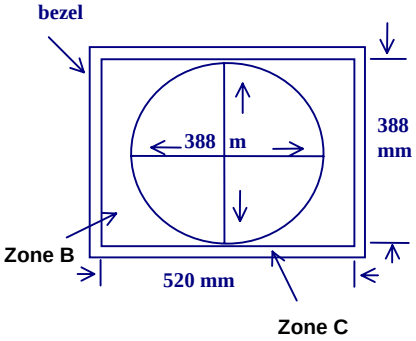


Pattern = crosshatch

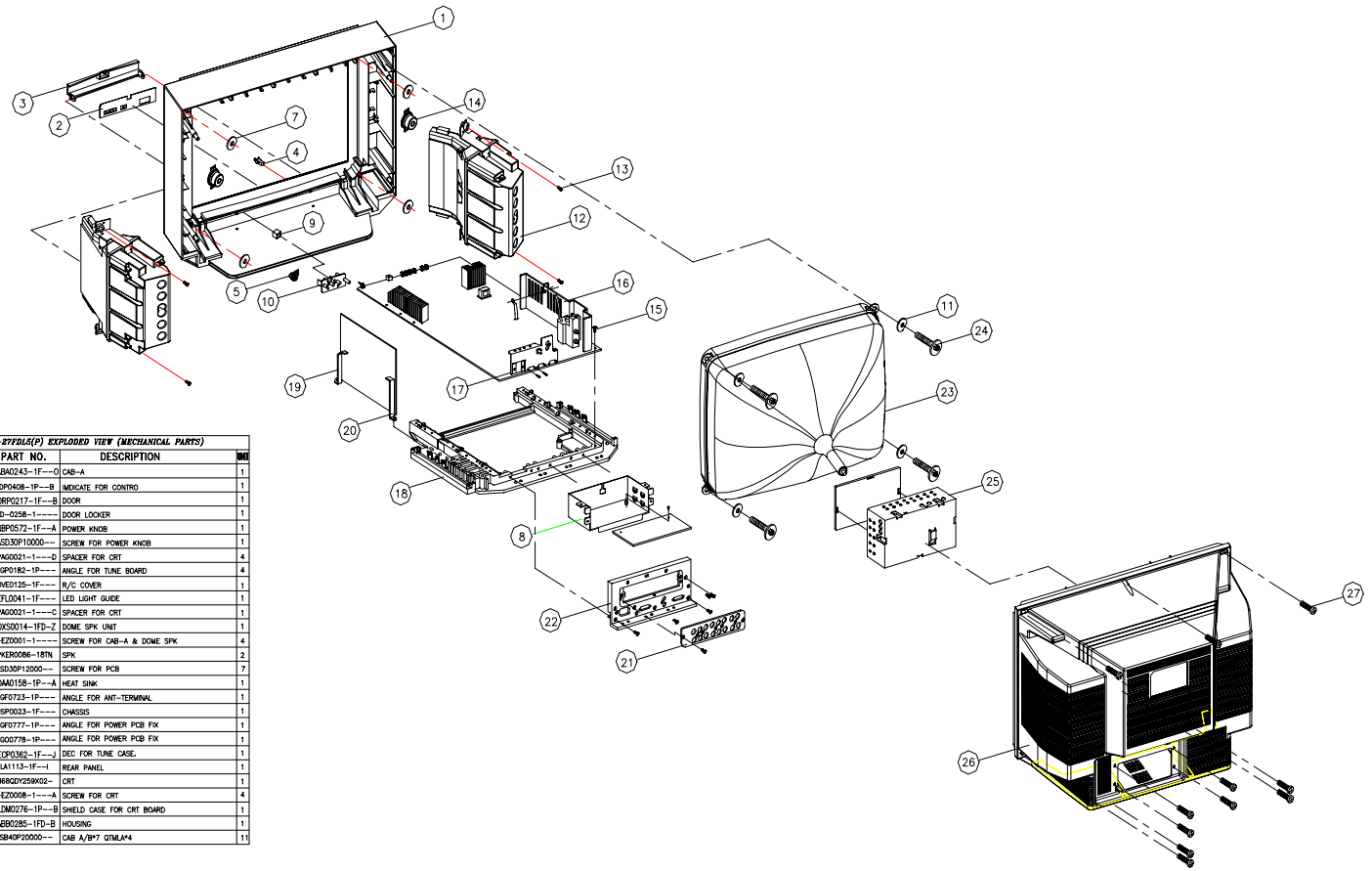


Top-bottom=2(a1+b1)/(AC+BD)x100%
Left-right =2(c1+d1)/(AB+CD)x100%

FIG.5 Misconvergence

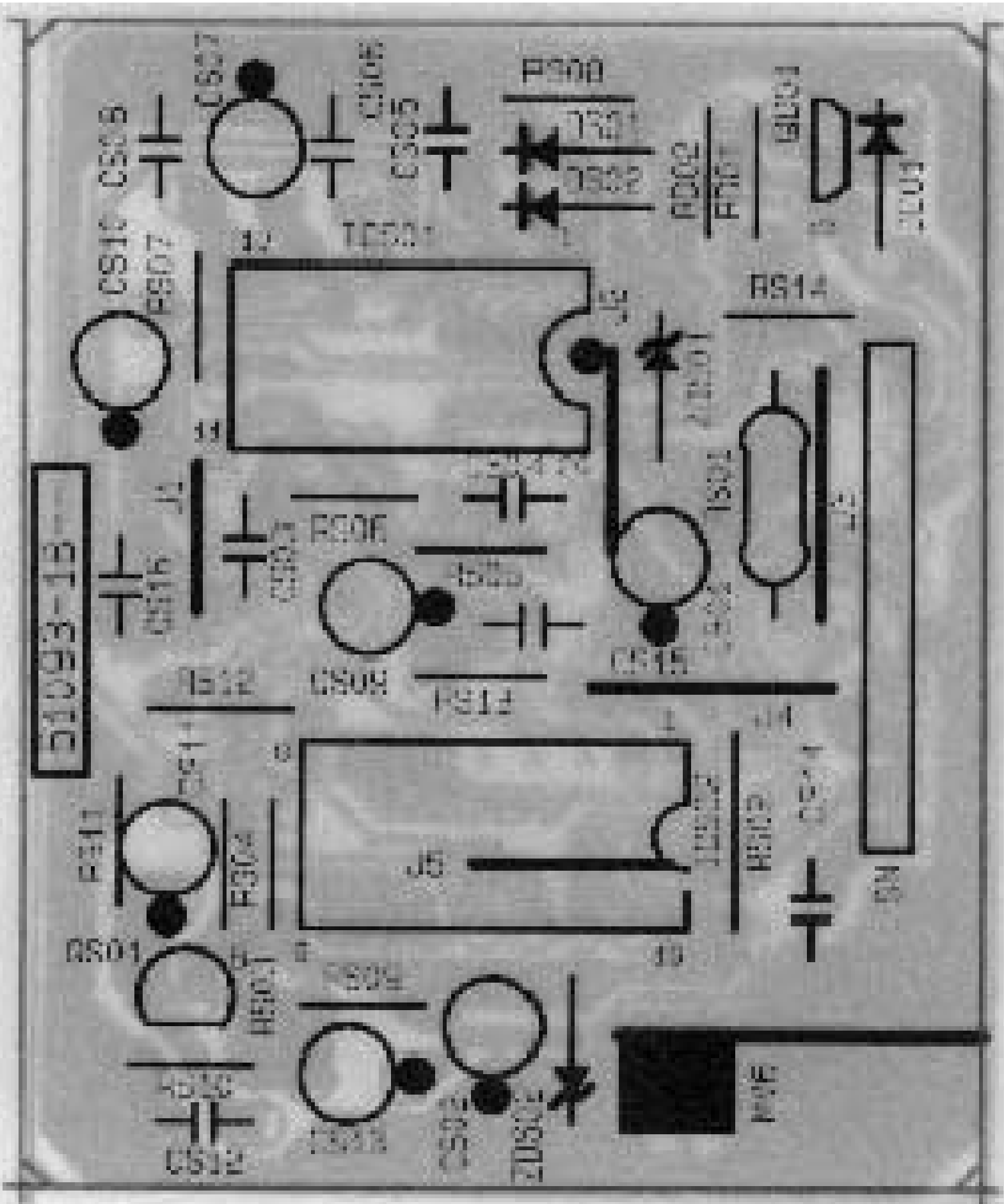


EXPLODED VIEW VER1.0



SME-27YDLS(P) EXPLODED VIEW (MECHANICAL PARTS)

ITEM	PART NO.	DESCRIPTION	Unit
1	GCABA0243-1F---O	CAB-A	1
2	HINDP0408-1P---B	INDICATE FOR CONTRO	1
3	GDORP0217-1F---B	DOOR	1
4	LHLD-0258-1----	DOOR LOCKER	1
5	JKNBP0572-1F---A	POWER KNOB	1
6	XEASD30P10000---	SCREW FOR POWER KNOB	1
7	PSPAG0021-1----D	SPACER FOR CRT	4
8	LANGP0182-1P----	ANGLE FOR TUNE BOARD	4
9	GCOVE0125-1F----	R/C COVER	1
10	PREFL0041-1F----	LED LIGHT GUIDE	1
11	PSPAG0021-1----C	SPACER FOR CRT	1
12	DBOXS0014-1FD-Z	DOME SPK UNIT	1
13	LX-EZ0001-1-----	SCREW FOR CAB-A & DOME SPK	4
14	RSPKER0086-18TN	SPK	2
15	XEASD30P12000---	SCREW FOR PCB	7
16	PRDAA0158-1P---A	HEAT SINK	1
17	LANGF0723-1P----	ANGLE FOR ANT-TERMINAL	1
18	LCHSP0023-1F----	CHASSIS	1
19	LANGF0777-1P----	ANGLE FOR POWER PCB FIX	1
20	LANGG0778-1P----	ANGLE FOR POWER PCB FIX	1
21	HDECP0362-1F---J	DEC FOR TUNE CASE.	1
22	GTMLA1113-1F---I	REAR PANEL	1
23	VBM68QDY259X02--	CRT	1
24	LX-EZ0008-1----A	SCREW FOR CRT	4
25	PSLDM0276-1P---B	SHIELD CASE FOR CRT BOARD	1
26	GCABB0285-1FD-B	HOUSING	1
27	XETSB40P20000---	CAB A/B*7 QTMLA*4	11


P300
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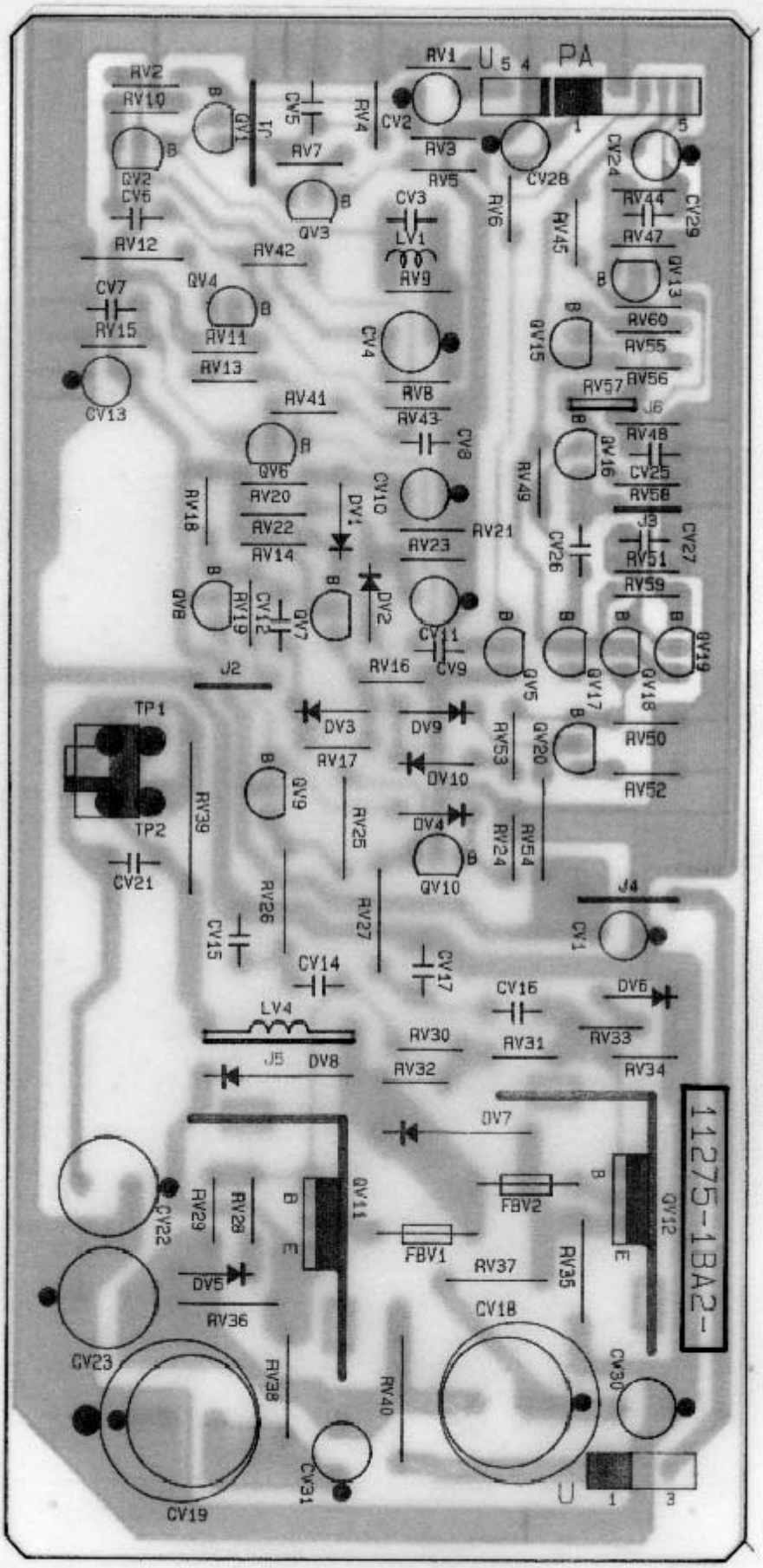
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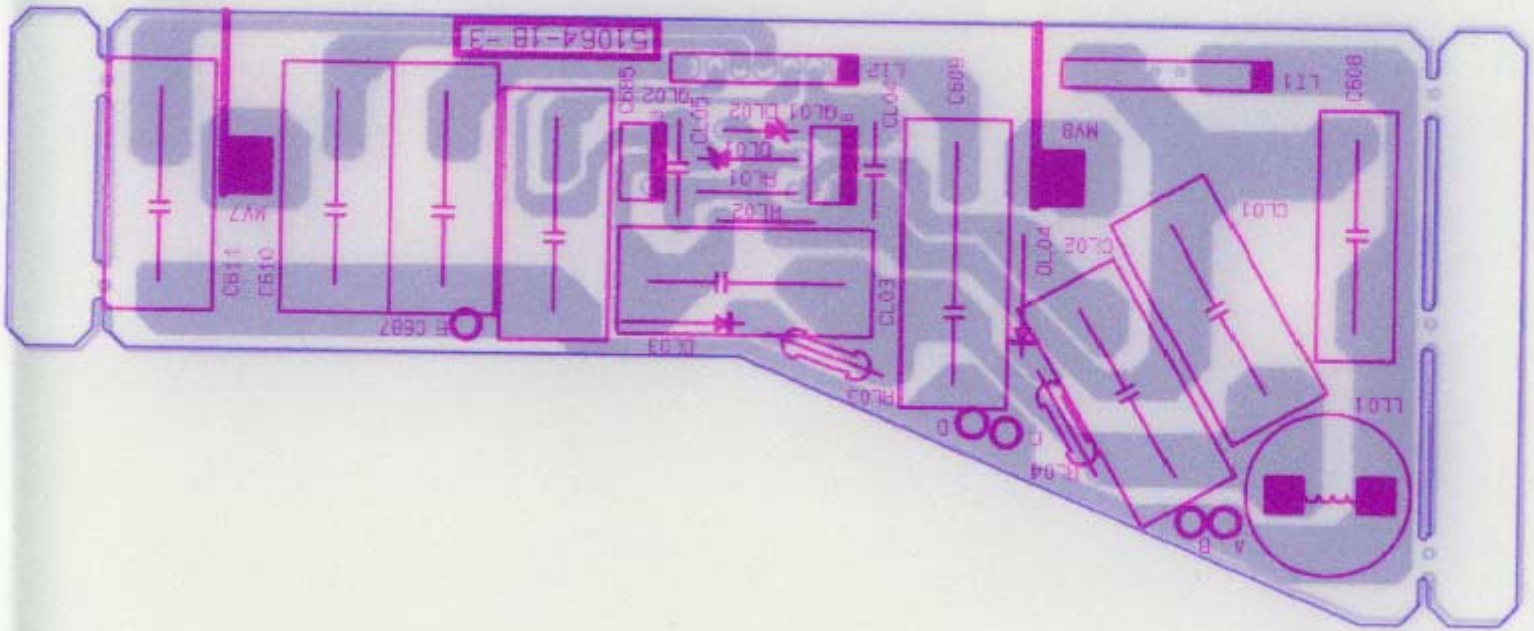
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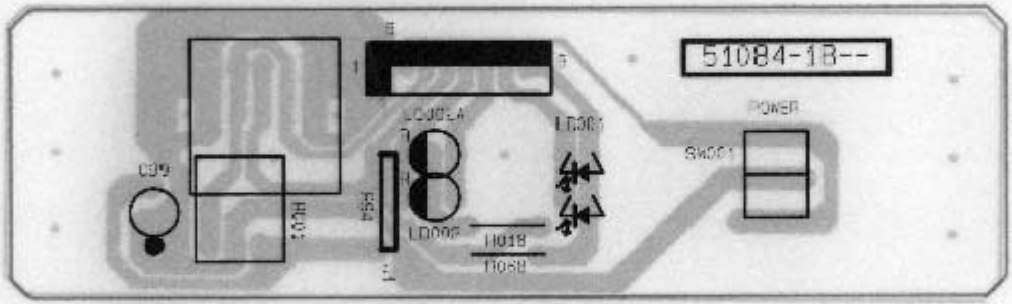
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POWER
SW001
LD001A
LD003
LD002
R001
R002
R003
CN1
CN2
CN3

06MB21020-1C-B-
51060-1C-B
WARNING
ONLY WITH SAME TYPE AND
GND3

WARNING
ONLY WITH SAME TYPE AND RATING OF FUSE
C733
C732

51022-1B-3-
CRT-SOCKET
GND3
VR901
R993
R951
R952
R950
R957
R962
R973
R974
R975
L972
L974
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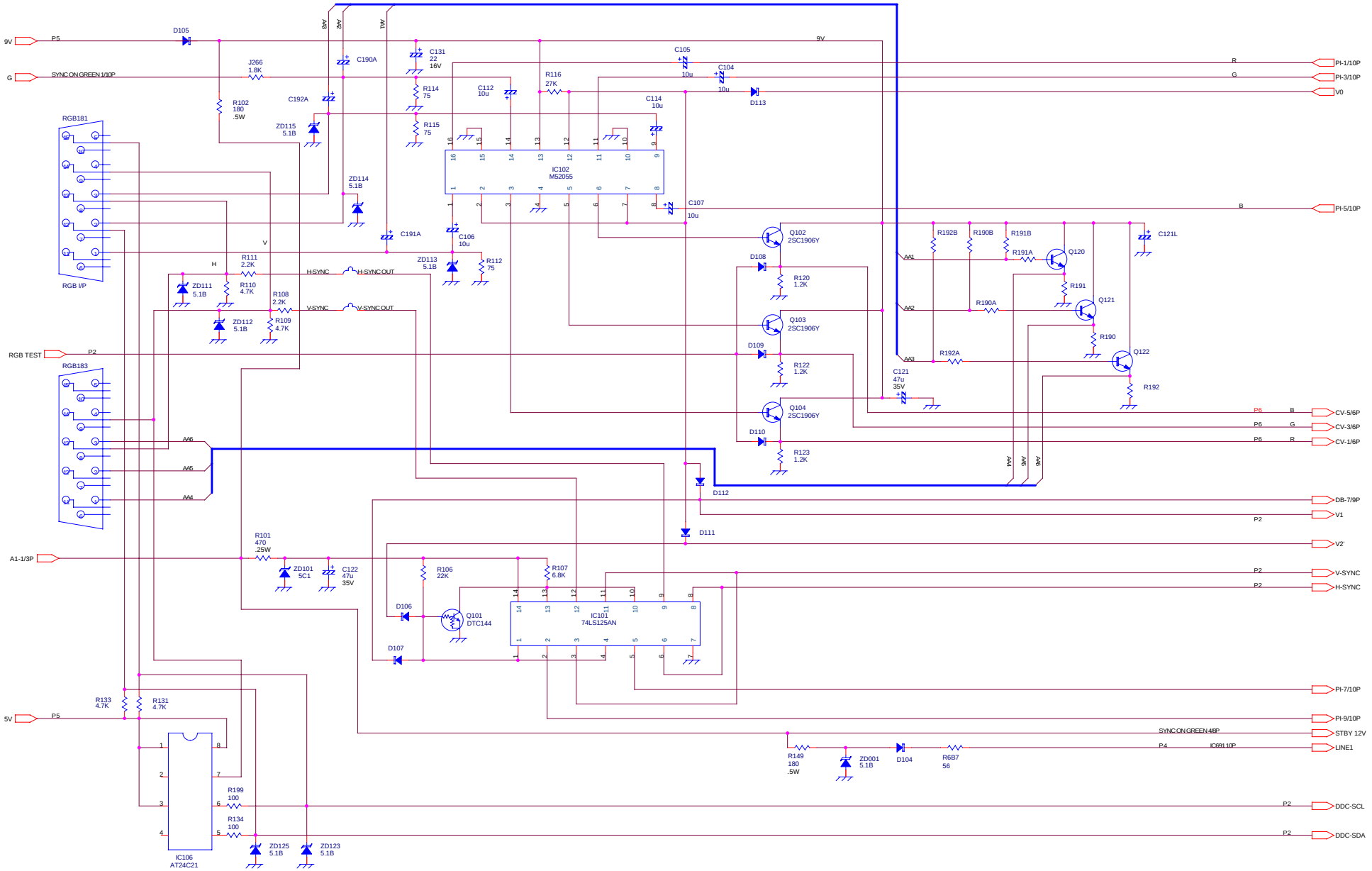
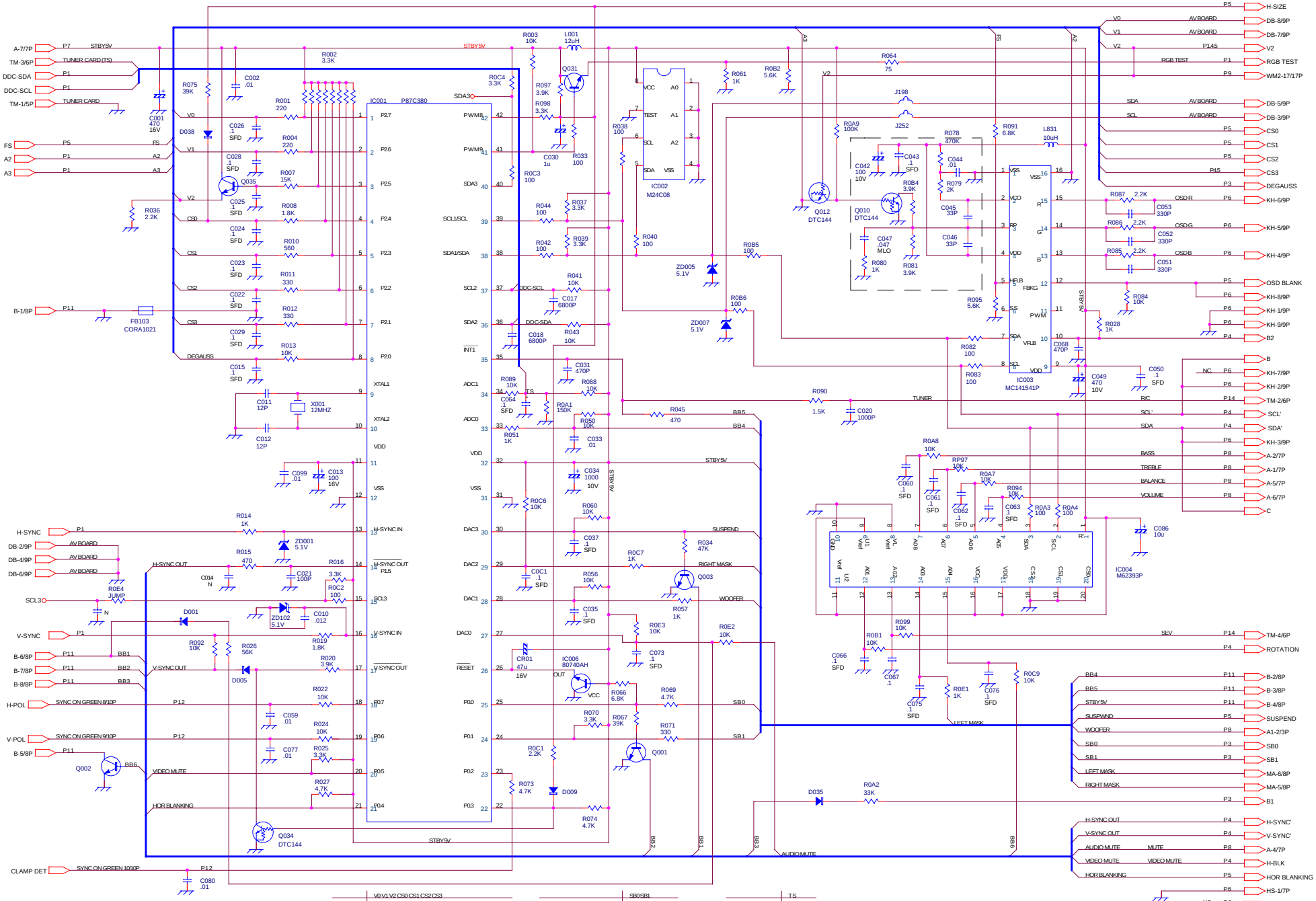


represent the critical component.

PLAG 1

SAMPO CO. ELECTRONIC RD2 (RGB.SCH)		
SME-27FDL5(P)		
Size C	Document Number MONITOR RGB	Rev 0
Date: Monday, November 19, 2001	Sheet 1 of 14	



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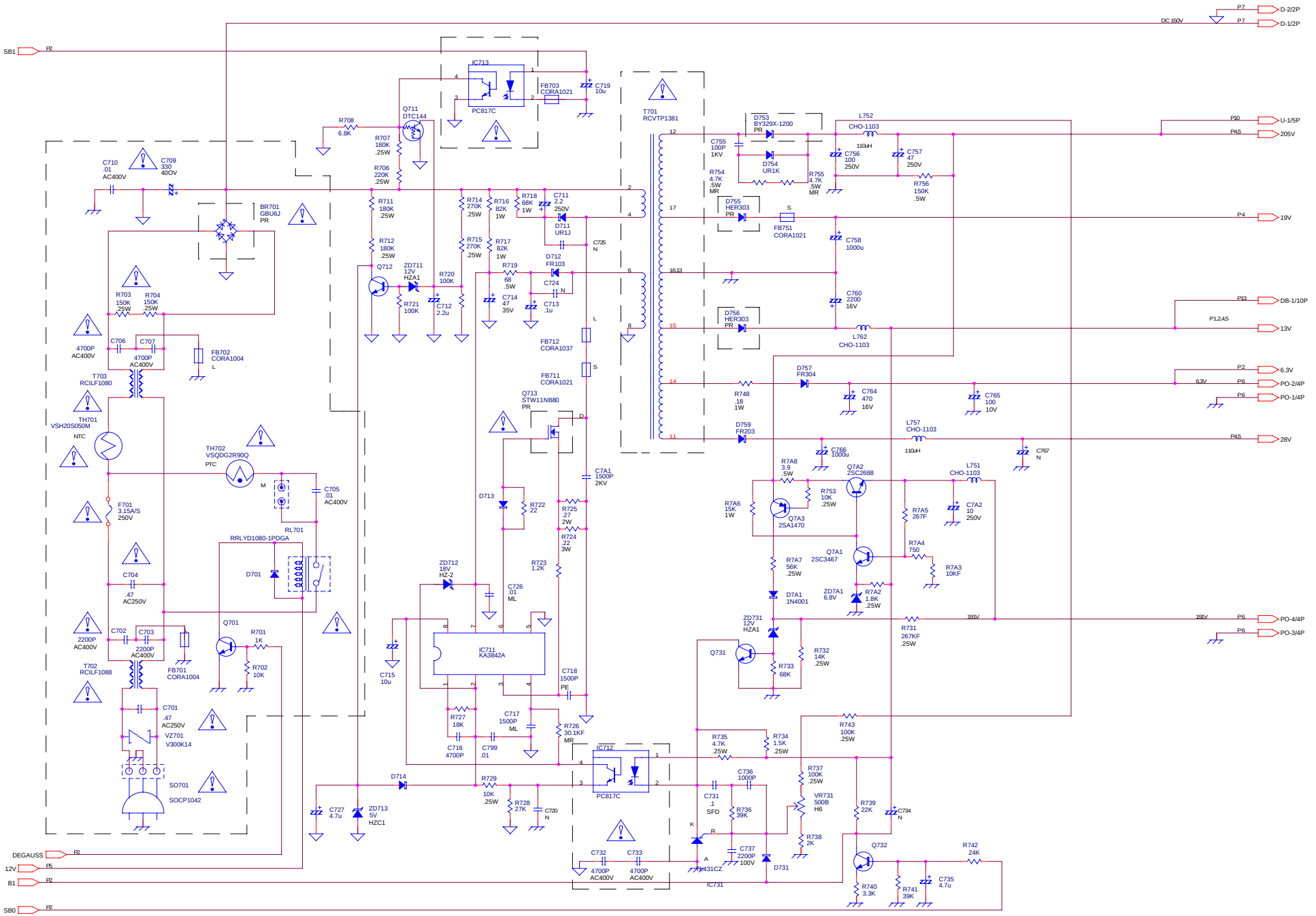
TV	0 0 1 0 0 0 0
AV1	1 0 1 0 0 0 0
AV2	0 1 1 0 0 0 0
YCbCr	1 1 1 0 0 0 0
YPbPr	1 0 0
RGB	1 1 0

SB0 SB1	
POWER ON	1 1
POWER SAVING	0 1
OFF	0 0

T.S	
W/O TUNER	5V
NTSC	25V
PAL	0V
SECAM	0V

31K	0 0 0 0
35K	1 0 0 0
38K	1 1 0 0
43K	1 1 1 1
48K	1 1 1 1



PAGE 3

SAMPO CO. ELECTRONIC RD2 (POWER1.SCH)

SME-27FDL5(P)

Size	Document Number	Rev
C	MAIN POWER	

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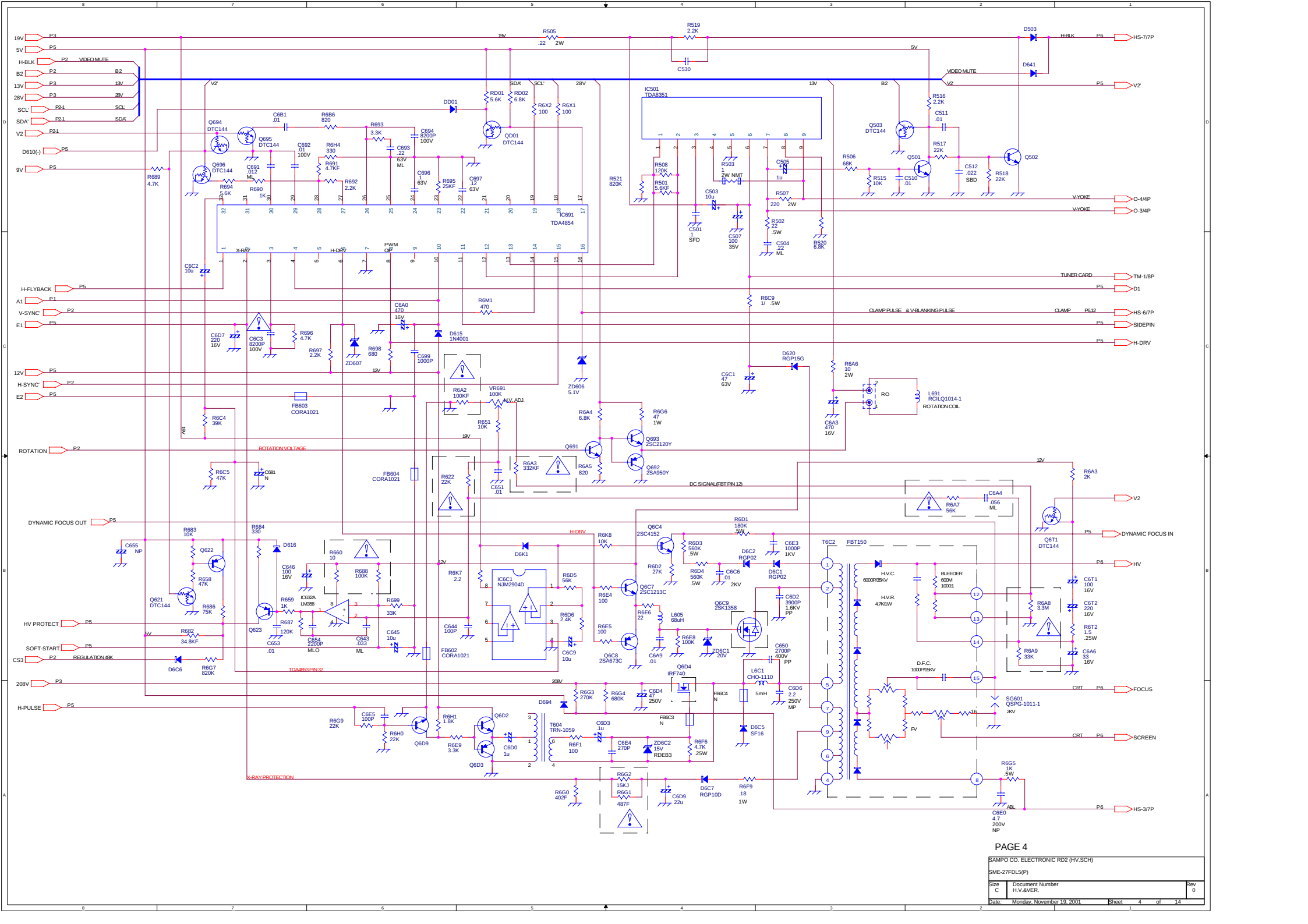
19V
5V
H-BLK
B2
13V
28V
SCL'
SDA'
V2
D610(-)
9V
VIDEO MUTE
IC501
TDA8351
IC691
TDA4854
H-FLYBACK
A1
V-SYNC'
E1
12V
H-SYNC'
E2
ROTATION
ROTATION VOLTAGE
DYNAMIC FOCUS OUT
HV PROTECT
SOFT-START
CS3
REGULATION
208V
H-PULSE
X-RAY PROTECTION
TUNER CARD
CLAMP PULSE & V-BLANKING PULSE
DC SIGNAL(FBT PIN 12)
TDA4853 PIN 32
ROTATION COIL
L691 RCILQ1014-1
FBT150
DYNAMIC FOCUS IN
HV
FOCUS
SCREEN
V-YOKE
HS-7/7P
V2'
O-4/4P
O-3/4P
TM-1/8P
D1
HS-6/7P
SIDEPIN
H-DRV
CLAMP
HS-3/7P
PAGE 4
SAMPO CO. ELECTRONIC RD2 (HV.SCH)
SME-27FDL5(P)
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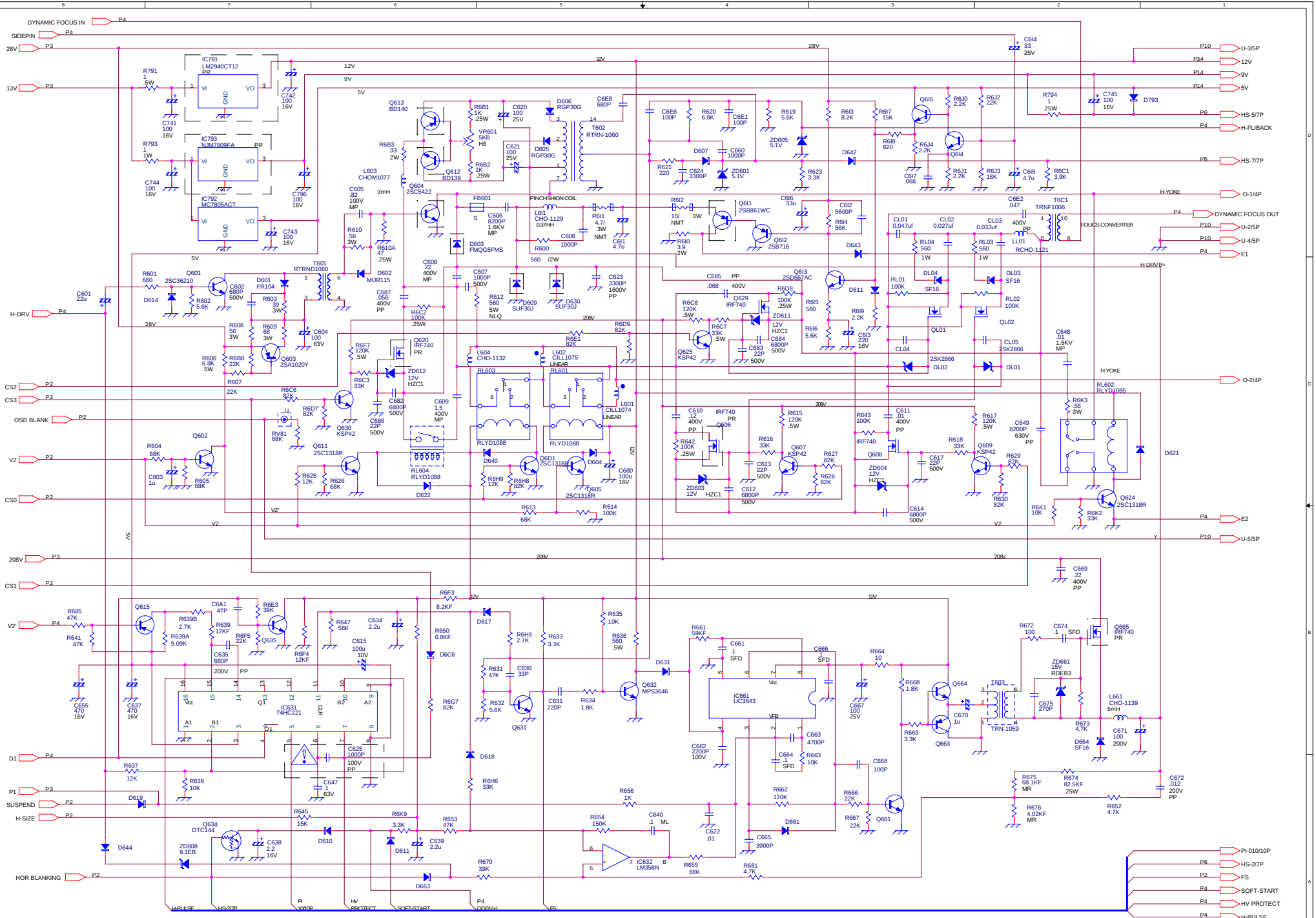

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SAMPO CO. ELECTRONIC RD2 (DEF.SCH)		
SME-27FDL5(P)		
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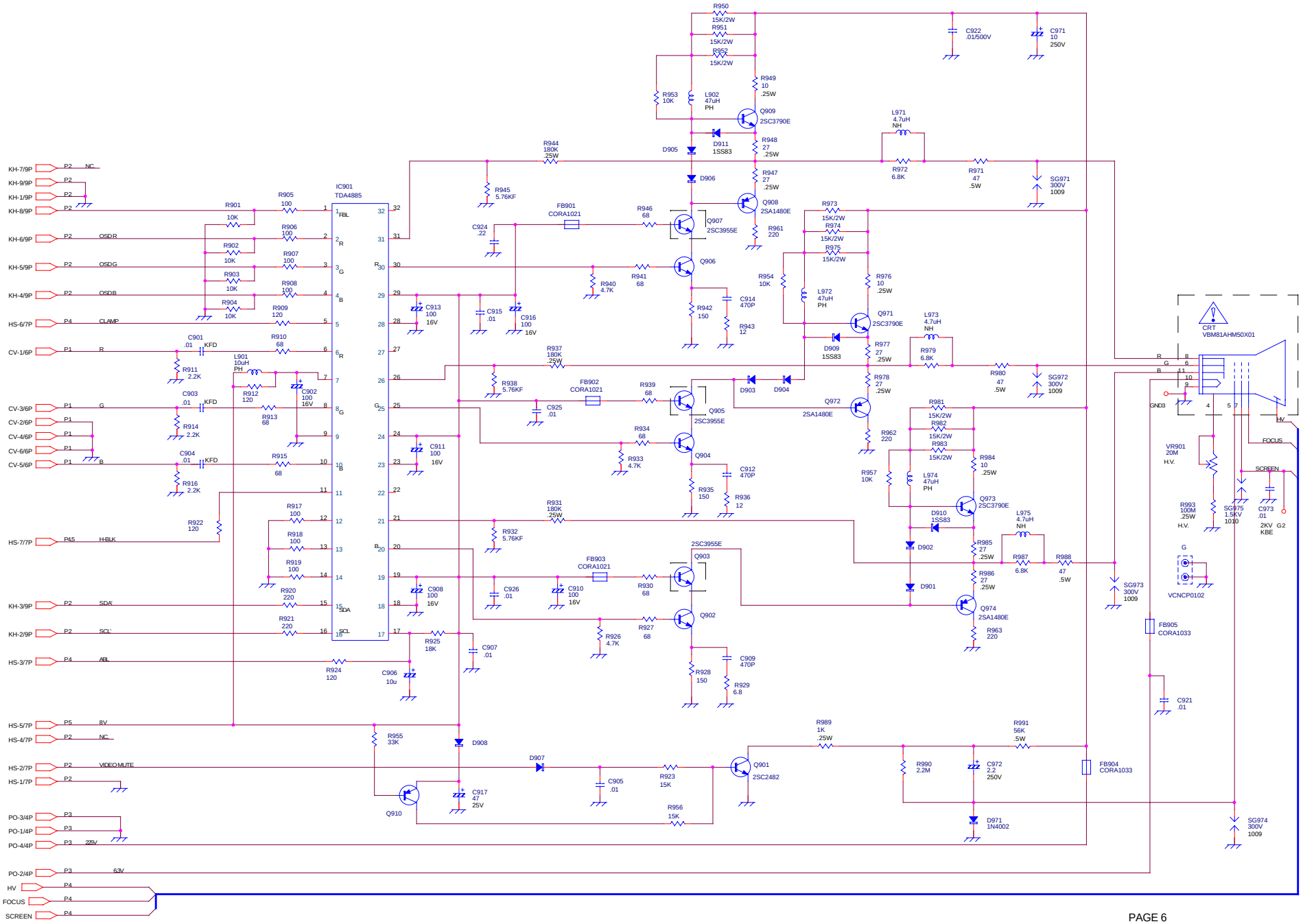
IC901
TDA4885
CRT
VBM81AHM50X01
KH-7/9P
KH-9/9P
KH-1/9P
KH-8/9P
KH-6/9P
KH-5/9P
KH-4/9P
HS-6/7P
CV-1/6P
CV-3/6P
CV-2/6P
CV-4/6P
CV-6/6P
CV-5/6P
HS-7/7P
KH-3/9P
KH-2/9P
HS-3/7P
HS-5/7P
HS-4/7P
HS-2/7P
HS-1/7P
PO-3/4P
PO-1/4P
PO-4/4P
PO-2/4P
HV
FOCUS
SCREEN
OSD.R
OSD.G
OSD.B
CLAMP
H.BLK
SDA'
SCL'
ABL
8V
VIDEO MUTE
225V
63V
Q901 2SC2482
Q902
Q903 2SC3955E
Q904
Q905 2SC3955E
Q906
Q907 2SC3955E
Q908 2SA1480E
Q909 2SC3790E
Q910
Q971 2SC3790E
Q972 2SA1480E
Q973 2SC3790E
Q974 2SA1480E
D901
D902
D903
D904
D905
D906
D907
D908
D909 1SS83
D910 1SS83
D911 1SS83
D971 1N4002
FB901 CORA1021
FB902 CORA1021
FB903 CORA1021
FB904 CORA1033
FB905 CORA1033
VCNCP0102
VR901 20M
H.V.
SG971 300V 1009
SG972 300V 1009
SG973 300V 1009
SG974 300V 1009
SG975 1.5KV 1010
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SAMPO CO. ELECTRONIC R&D2 (CRT.SCH)
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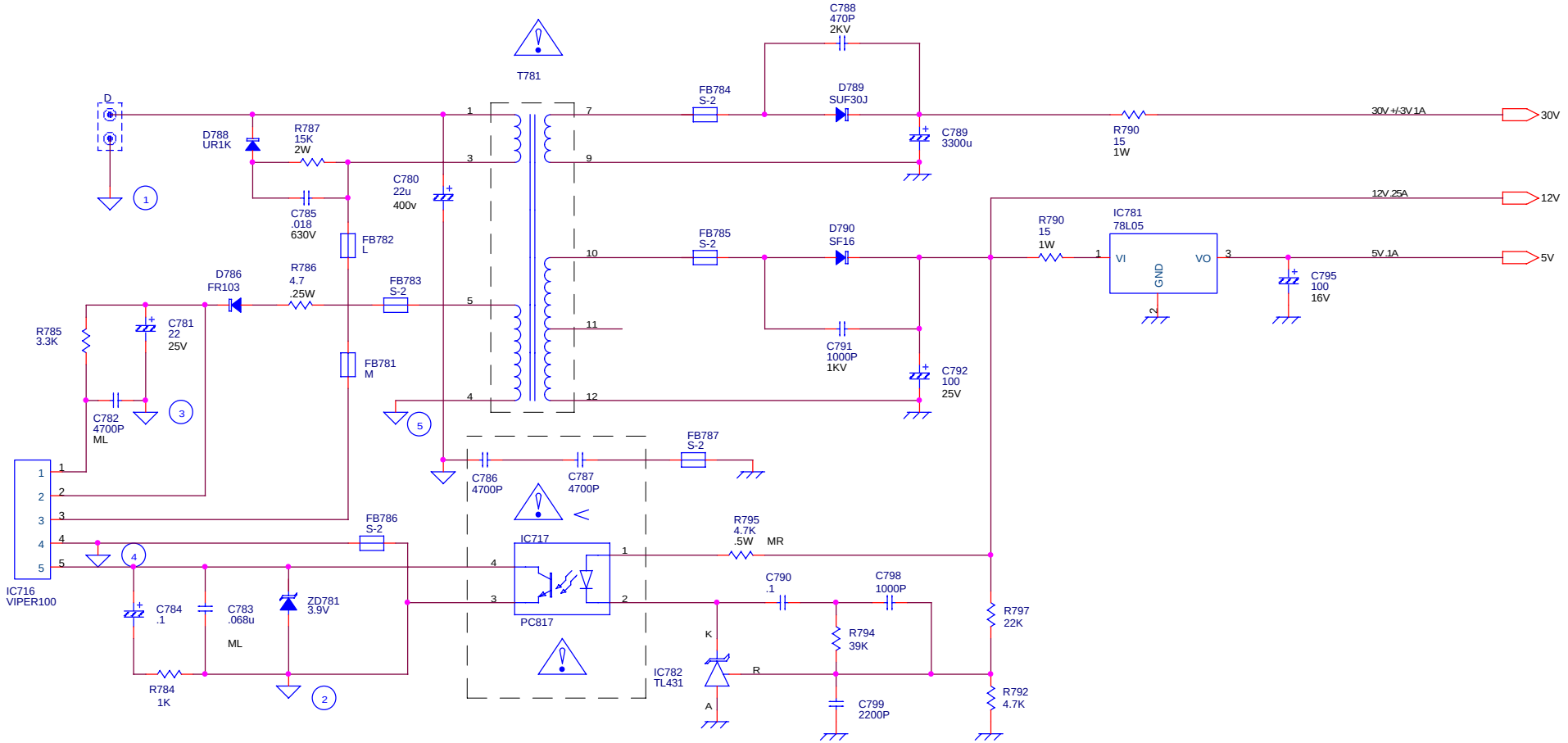
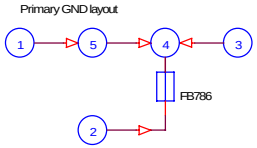


Primary GND layout



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SAMPO CO.ELECTRONIC RD2 (POWER.SCH)		
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Size B	Document Number POWER	Rev 0
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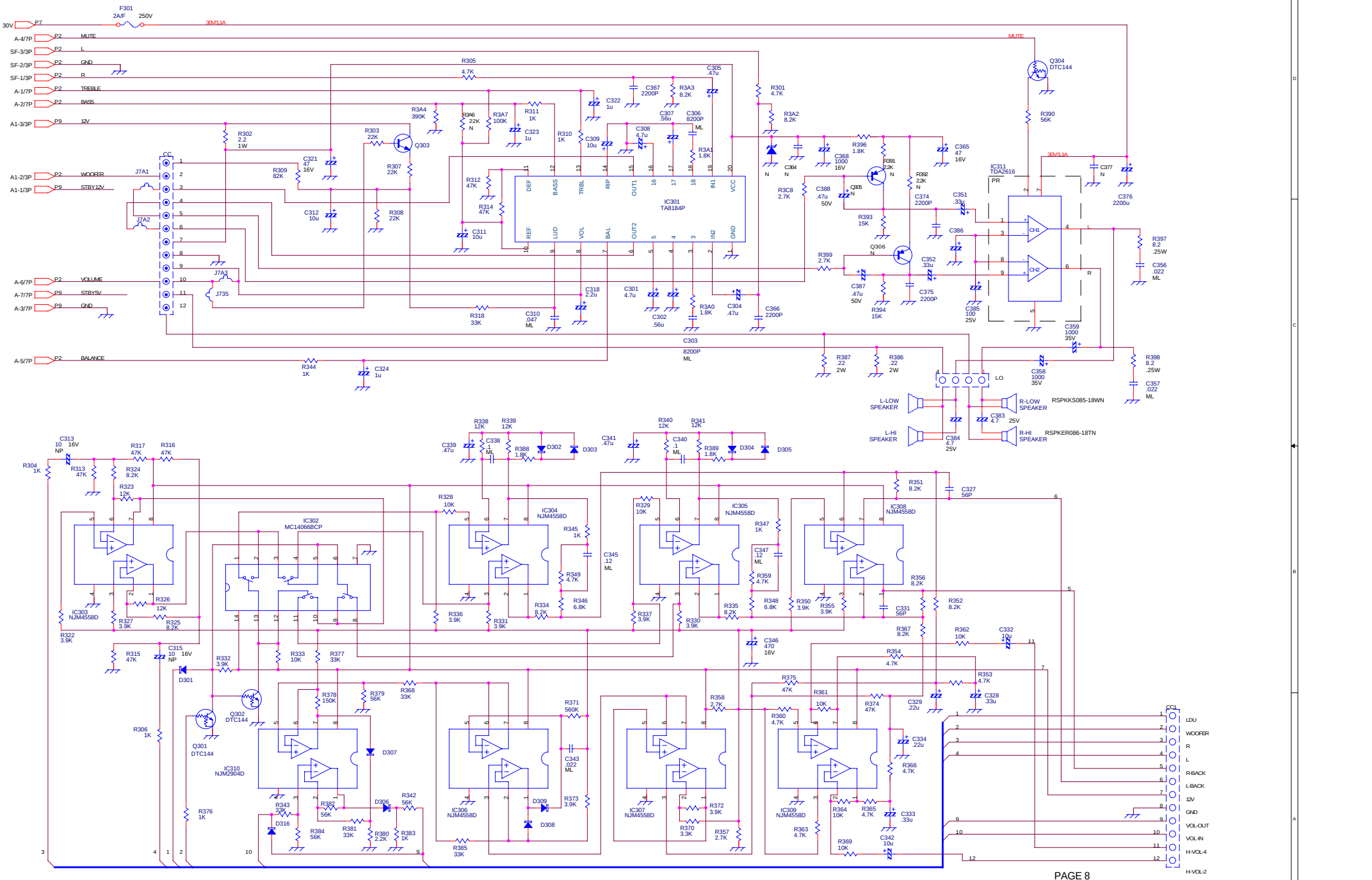

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SAMPO CO. ELECTRONIC RD2 (AUDIO.SCH)

SME-27FDL5(P)

Size	Document Number	Rev
C	AUDIO	0

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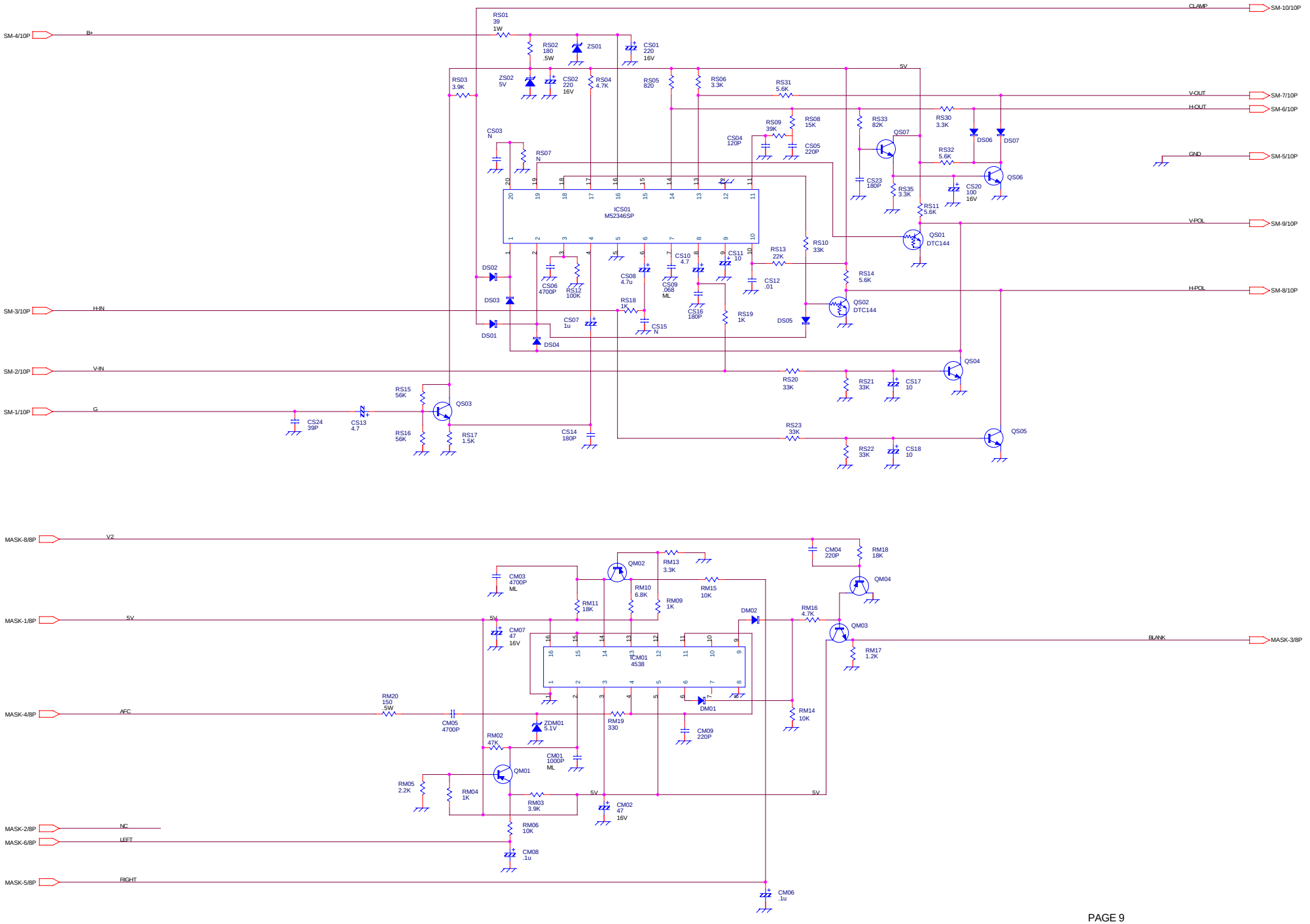

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SAMPO CO.ELECTRONIC RD2 (S-M.SCH)		
SME-27FDL5(P)		
Size C	Document Number SYNC & MASK	Rev 0
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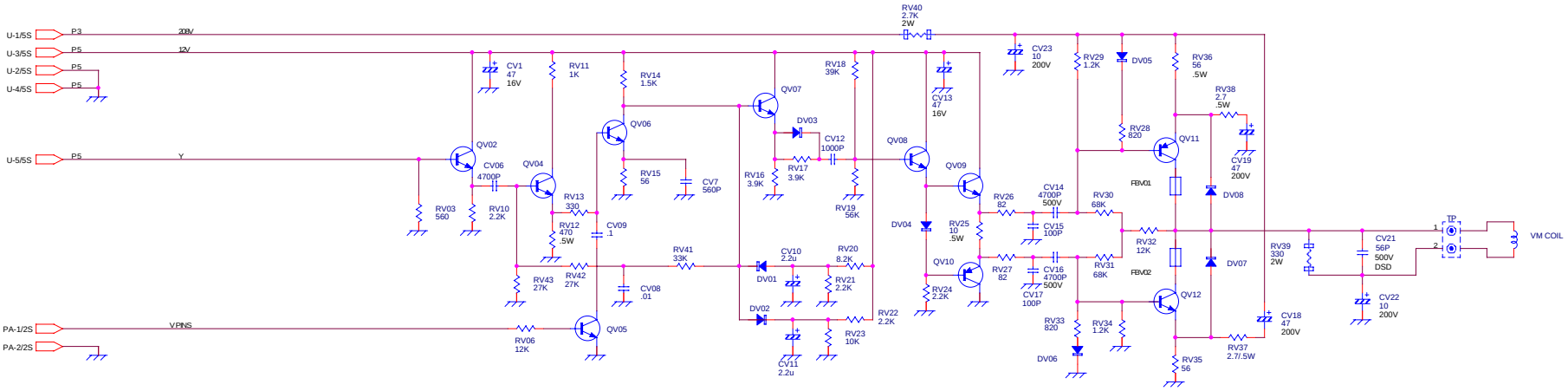

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SAMPO CO. ELECTRONIC RD2 (VM.SCH)		
SME-27FDL5(P)		
Size C	Document Number VM	Rev 0
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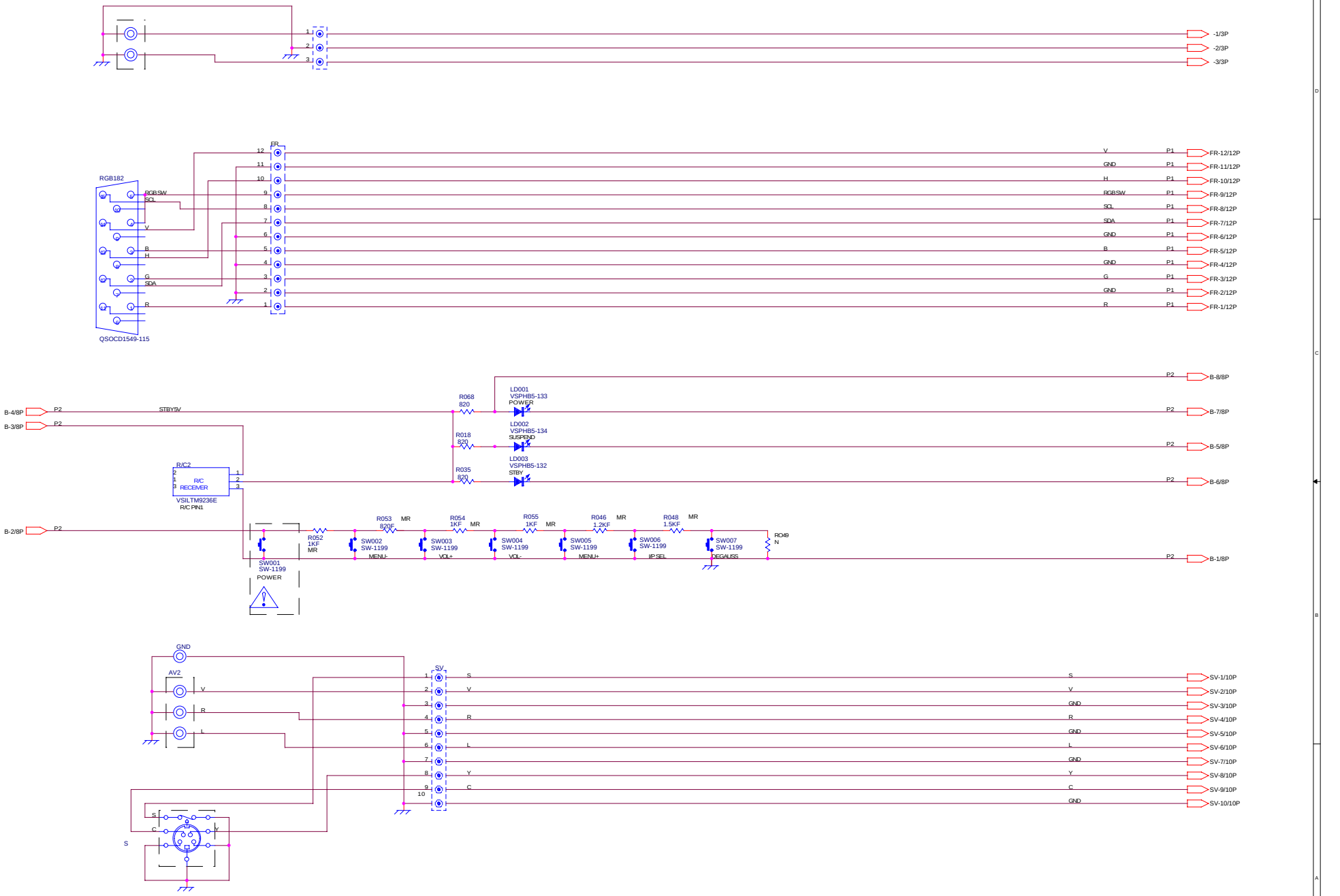

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SAMPO CO. ELECTRONIC RD2 (LED.SCH)

SME-27FDL5(P)

Size	Document Number	Rev
C	LED	0

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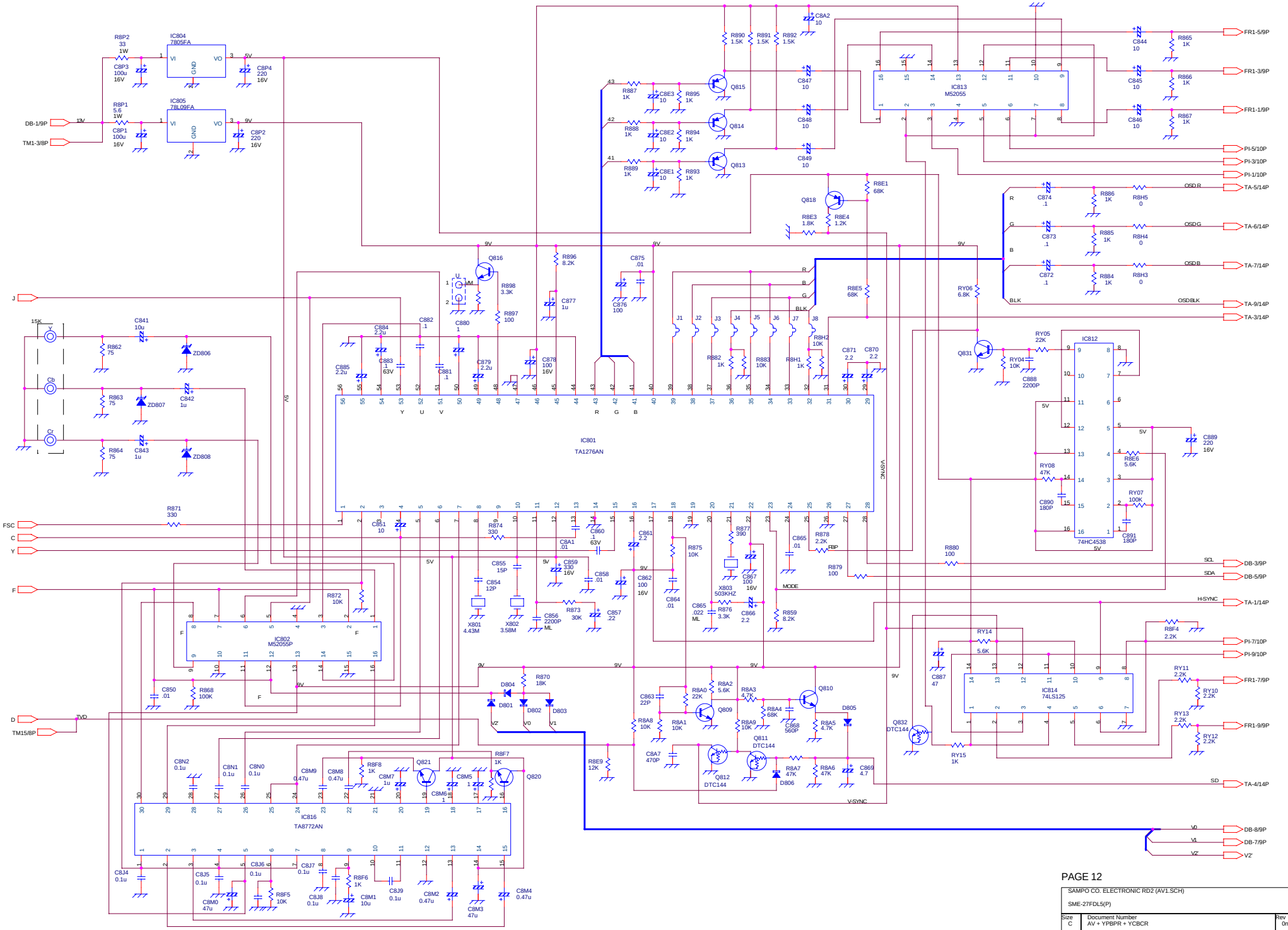

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SAMPO CO. ELECTRONIC RD2 (AV1.SCH)		
SME-27FDL5(P)		
Size C	Document Number AV + YPBPR + YCBCR	Rev 0n
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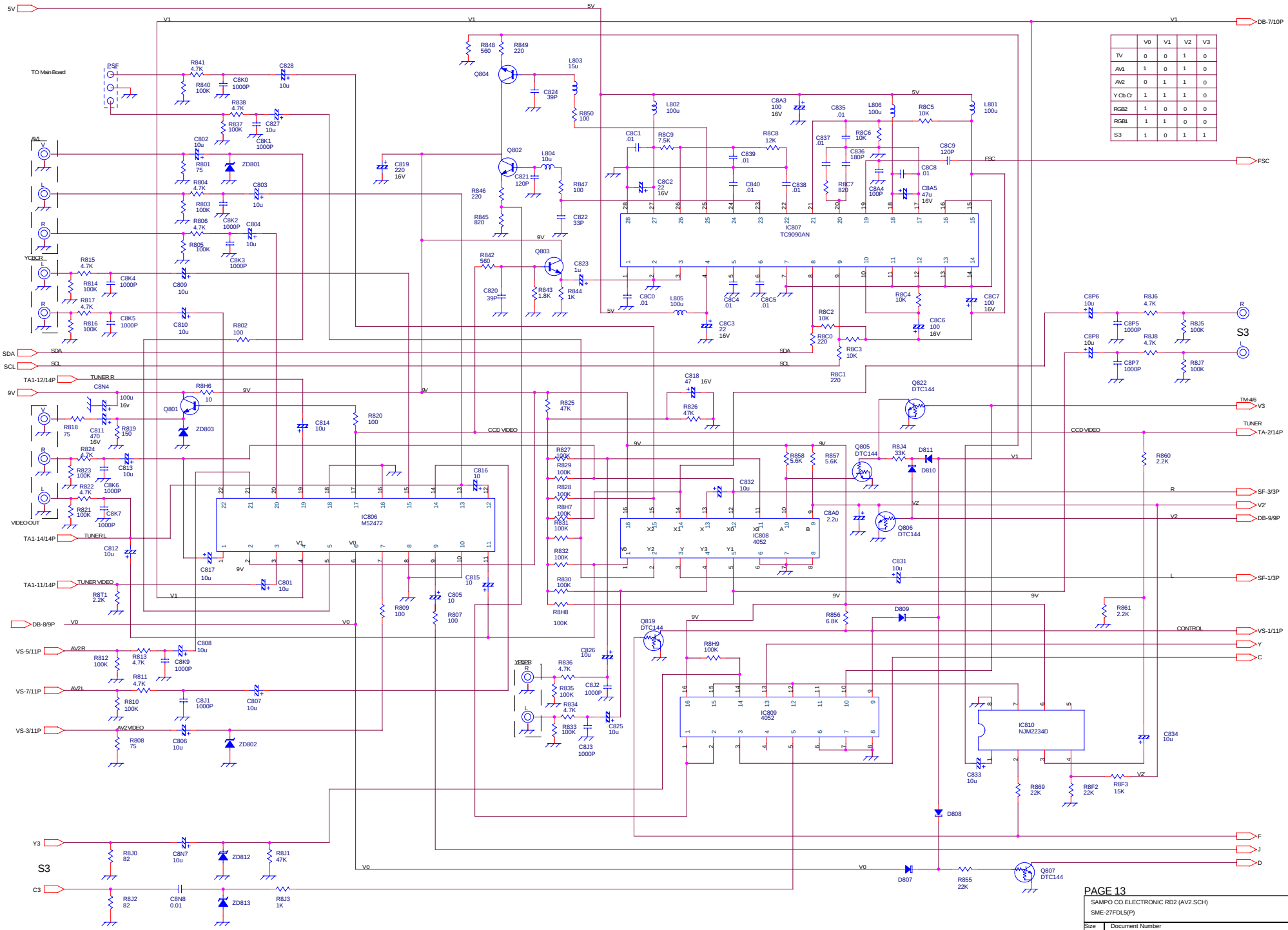
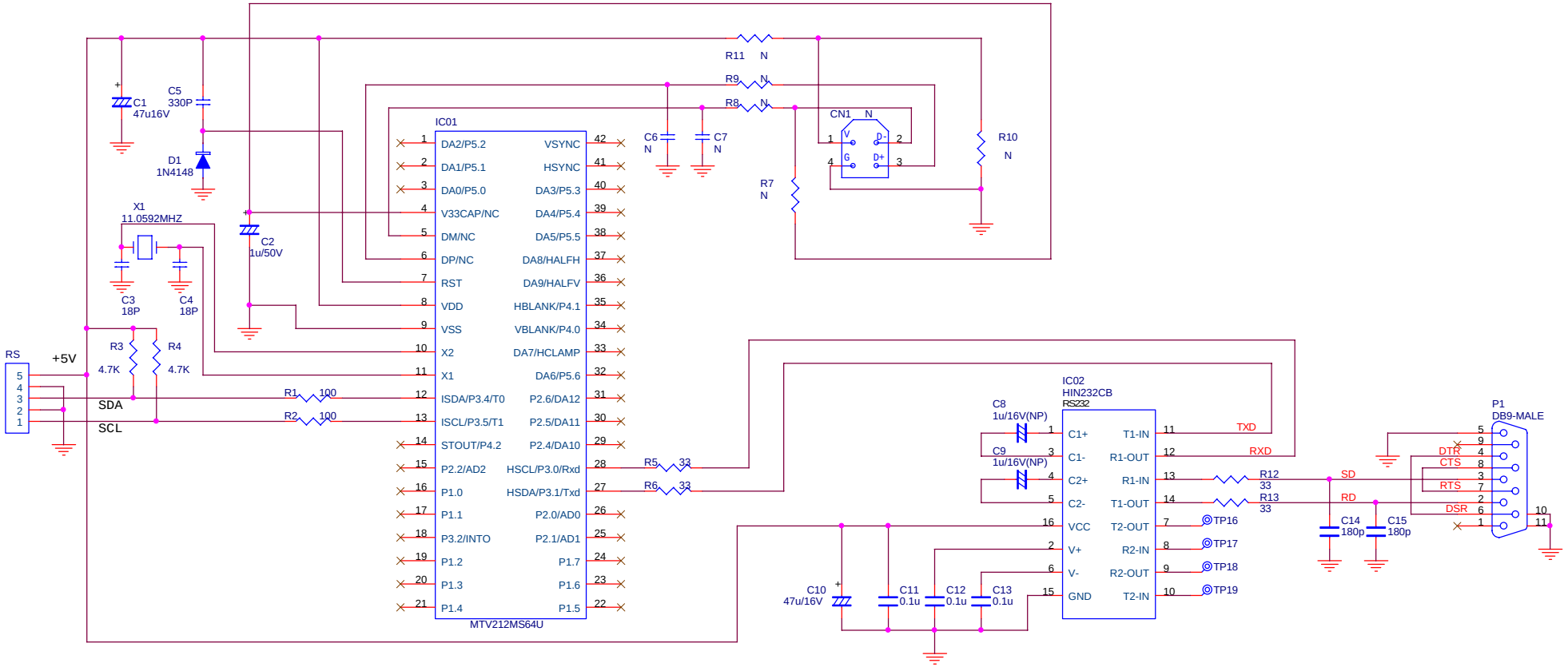


	V0	V1	V2	V3
TV	0	0	1	0
AV1	1	0	1	0
AV2	0	1	1	0
Y Cb Cr	1	1	1	0
RGB2	1	0	0	0
RGB1	1	1	0	0
S3	1	0	1	1



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SAMPO CO. ELECTRONIC RD2 (RS232.SCH)		
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SME-27FDL5(P) ELECTRONIC PARTS LIST VER1.0

1. MAIN BOARD

∗ - represent the critical component

	MAIN PWB	81	QPWB51060-1G-B-	MAIN BOARD			
∗	BR701	54	VSIGBU6J-------	IC	GBU6J		
	C001	21	VCEACU1CG477M-P	470uF	16V	± 20%	Aluminum Elect.
	C002,044	20	VCKBDU1HY103K-P	.01uF	50V	± 10%	High Diel. Ceramic
	C011,012	84	VCDCDU1HH120J-P	12PF	50V	± 5%	Temp. Comp. Ceramic
	C013	20	VCEACU1CG107M-P	100uF	16V	± 20%	Aluminum Elect.
	C015,022~026	79	VCSFDU1HY104Z-P	.1uF	50V	+80%-20%	Semiconductor Ceramic
	C020,033	44	VCKBDU1HY102K-P	1000PF	50V	± 10%	High Diel. Ceramic
	C021	68	VCKBDU1HY101K-P	100PF	50V	± 10%	High Diel. Ceramic
	C028,029,035	79	VCSFDU1HY104Z-P	.1uF	50V	+80%-20%	Semiconductor Ceramic
	C030	77	VCEACU1HG105M-P	1uF	50V	± 20%	Aluminum Elect.
	C031,068	69	VCKBDU1HY471K-P	470PF	50V	± 10%	High Diel. Ceramic
	C034	28	VCEACU1AG108M-P	1000uF	100V	± 20%	Aluminum Elect.
	C037,043,050	79	VCSFDU1HY104Z-P	.1uF	50V	+80%-20%	Semiconductor Ceramic
	C042	52	VCEACU1AG107M-P	100uF	10V	± 20%	Aluminum Elect.
	C045,046	22	VCDCDU1HH330J-P	33PF	50V	± 5%	Temp. Comp. Ceramic
	C047	43	VCMECU1JG473J-P	.047uF	63V	± 5%	Metal Ploy. Film
	C049	53	VCEACU1AG477M-P	470uF	10V	± 20%	Aluminum Elect.
	C051,052,053	88	VCKBDU1HY331K-P	330PF	50V	± 10%	High Diel. Ceramic
	C060~064	79	VCSFDU1HY104Z-P	.1uF	50V	+80%-20%	Semiconductor Ceramic
	C066,067,0C1	79	VCSFDU1HY104Z-P	.1uF	50V	+80%-20%	Semiconductor Ceramic
	C073,075,076	79	VCSFDU1HY104Z-P	.1uF	50V	+80%-20%	Semiconductor Ceramic
	C080,099	20	VCKBDU1HY103K-P	.01uF	50V	± 10%	High Diel. Ceramic
	C086	26	VCEACU1HG226M-P	22uF	50V	± 20%	Aluminum Elect.
	C104~107	53	VCEACU1HG106M-P	10uF	50V	± 20%	Aluminum Elect.
	C112,114	53	VCEACU1HG106M-P	10uF	50V	± 20%	Aluminum Elect.
	C121,121L,122	43	VCEACU1VG476M-P	47uF	35V	± 20%	Aluminum Elect.
	C131	17	VCEACU1CG226M-P	22uF	16V	± 20%	Aluminum Elect.
	C190A~192A	53	VCEACU1HG106M-P	10uF	50V	± 20%	Aluminum Elect.
	C501	79	VCSFDU1HY104Z-P	.1uF	50V	+80%-20%	Semiconductor Ceramic
	C502	18	VCEACU1VG107M-P	100uF	35V	± 20%	Aluminum Elect.
	C503	53	VCEACU1HG106M-P	10uF	50V	± 20%	Aluminum Elect.
	C504	81	VCPELF1HG224J--	.22uF	50V	± 5%	Polypropylene Film
	C505	77	VCEACU1HG105M-P	1uF	50V	± 20%	Aluminum Elect.
	C507	29	VCEACU1HG107M-P	100uF	50V	± 20%	Aluminum Elect.
	C510,511,530	20	VCKBDU1HY103K-P	.01uF	50V	± 10%	High Diel. Ceramic
	C512	87	VCSBDU1HY223K-P	.022uF	50V	± 20%	Semiconductor Ceramic
	C601	26	VCEACU1HG226M-P	22uF	50V	± 20%	Aluminum Elect.
	C602	27	VCKBDU2HY221K-P	220PF	500V	± 10%	High Diel. Ceramic
	C603,670,6D0	77	VCEACU1HG105M-P	1uF	50V	± 20%	Aluminum Elect.
	C604	67	VCEACU1JG107M-P	100uF	63V	± 20%	Aluminum Elect.
	C605	09	VCMPHF2AG824J--	.82uF	100V	± 5%	Metal Ploy. Film
	C606	49	RC-MP912J-13C--	9100PF	1.6KV	± 5%	Metal Ploy. Film
	C607	30	VCKBDU2HY102K-P	1000PF	500V	± 10%	High Diel. Ceramic
	C612,614	17	VCKBDF2HY682K--	6800PF	500V	± 10%	High Diel. Ceramic
	C613,617,686	50	VCDCDU2HH220J-P	22PF	500V	± 5%	Temp. Comp. Ceramic
	C615	52	VCEACU1AG107M-P	100uF	10V	± 20%	Aluminum Elect.
	C620,621,667	77	VCEACU1EG107M-P	100uF	25V	± 20%	Aluminum Elect.

	C622,651,653	20	VCKBDU1HY103K-P	.01uF	50V	± 10%	High Diel. Ceramic
	C623	03	VCPPHF3CG272J--	2700PF	1.6KV	± 5%	Polypropylene Film
	C624	64	VCKBDU1HY332K-P	3300PF	50V	± 10%	High Diel. Ceramic
*	C625	32	VCPPLU2AY102G-P	1000PF	100V	± 2%	Polypropylene Film
	C631	41	VCKBDU1HY221K-P	220PF	50V	± 10%	High Diel. Ceramic
	C634,638,639	50	VCEACU1HG225M-P	2.2uF	50V	± 20%	Aluminum Elect.
	C635	84	VCPPLU2AY681G--	2700PF	200V	± 2%	Polypropylene Film
	C637,655	21	VCEACU1CG477M-P	470uF	16V	± 20%	Aluminum Elect.
	C640	60	VCPELU1HG104J-P	.1uF	50V	± 5%	Polypropylene Film
	C643	15	VCPELU1HG333J-P	.033uF	50V	± 5%	Polypropylene Film
	C644	68	VCKBDU1HY101K-P	100PF	50V	± 10%	High Diel. Ceramic
	C645	53	VCEACU1HG106M-P	10uF	50V	± 20%	Aluminum Elect.
	C646,680,6T1	20	VCEACU1CG107M-P	100uF	16V	± 20%	Aluminum Elect.
	C647,696	18	VCMECU1JG104J-P	.1uF	63V	± 5%	Metal Ploy. Film
	C648	08	RC-MP103J-13C--	.01uF	1.6KV	± 5%	Metal Ploy. Film
	C649	54	VCPPHF2JG822J--	8200PF	630V	± 5%	Polypropylene Film
	C650	86	VCPPHF2JG102J--	1000PF	630V	± 5%	Polypropylene Film
	C654,662	10	VCMECU2AG222J-P	2200PF	100V	± 5%	Metal Ploy. Film
	C660,699	44	VCKBDU1HY102K-P	1000PF	50V	± 10%	High Diel. Ceramic
	C661,664,666	79	VCSFDU1HY104Z-P	.1uF	50V	+80%-20%	Semiconductor Ceramic
	C663	45	VCKBDU1HY472K-P	4700PF	50V	± 10%	High Diel. Ceramic
	C665	21	VCKBDU1HY392K-P	3900PF	50V	± 10%	High Diel. Ceramic
	C668	30	VCDCDU1HH680J-P	68PF	50V	± 5%	Temp. Comp. Ceramic
	C669	15	VCPPHF2GG224J--	.22uF	400V	± 5%	Polypropylene Film
	C671	22	VCEACF2EG107M--	100uF	250V	± 20%	Aluminum Elect.
	C672	18	VCPPHF2DG123J--	.012uF	200V	± 5%	Polypropylene Film
	C674,6D3	79	VCSFDU1HY104Z-P	.1uF	50V	+80%-20%	Semiconductor Ceramic
	C675,6E4	20	VCKBDU1HY271K-P	270PF	50V	± 10%	High Diel. Ceramic
	C682,684	17	VCKBDF2HY682K--	6800PF	500V	± 10%	High Diel. Ceramic
	C691	77	VCPELU1HG123J--	.012uF	50V	± 5%	Polypropylene Film
	C692	88	VCMPHF2AG103G--	.01uF	100V	± 2%	Metal Ploy. Film
	C693	80	VCMECU1JG224J-P	.22uF	63V	± 5%	Metal Ploy. Film
	C694,6C3	68	VCMECU2AG822J-P	8200PF	100V	± 5%	Metal Ploy. Film
	C697	11	VCMECU1JG124J-P	.12uF	63V	± 5%	Metal Ploy. Film
	C6A0,6A3	21	VCEACU1CG477M-P	470uF	16V	± 20%	Aluminum Elect.
	C6A1	03	VCDCDU1HH470J-P	47PF	50V	± 5%	Temp. Comp. Ceramic
*	C6A4	87	VCPELU1HG563J-P	.056uF	50V	± 5%	Polypropylene Film
	C6A6	64	VCEACF1CG336M-P	33uF	16V	± 20%	Aluminum Elect.
	C6A9,6B1	20	VCKBDU1HY103K-P	.01uF	50V	± 10%	High Diel. Ceramic
	C6C1	03	VCEACU1JG476M-P	47uF	63V	± 20%	Aluminum Elect.
	C6C2,6C9,6P1	53	VCEACU1HG106M-P	10uF	50V	± 20%	Aluminum Elect.
	C6C6	26	VCKBEF3DY103Z--	.01uF	2KV	+80%-20%	High Diel. Ceramic
	C6D2	52	VCPPHF3CG472J--	4700PF	1.6KV	± 5%	Polypropylene Film
	C6D4	88	VCEACU2EG476M-P	47uF	250V	± 20%	Aluminum Elect.
	C6D6	41	VCMPHF2EG225J--	2.2uF	250V	± 5%	Metal Ploy. Film
*	C6D7	82	VCEACU1CG227M-P	220uF	16V	± 20%	Aluminum Elect.
*	C6D9	26	VCEACU1HG226M-P	22uF	50V	± 20%	Aluminum Elect.
	C6E0	14	VCENCU2DG475M--	4.7uF	200V	± 20%	Aluminum Elect.
	C6E1,6E5,6E6	68	VCKBDU1HY101K-P	100PF	50V	± 10%	High Diel. Ceramic
	C6E2	15	VCPPHF2JG153J--	.015uF	630V	± 5%	Polypropylene Film

	C6E3	39	VCKBDU3AY102K-P	1000PF	1000V	± 10%	High Diel. Ceramic
	C6E8	82	VCKBDU2HY681K-P	680PF	500V	± 10%	High Diel. Ceramic
	C6I1	70	VCEHCF1HG475M--	4.7uF	50V	± 20%	Aluminum Elect.
	C6I2	47	VCKBDU1HY562K-P	5600PF	50V	± 10%	High Diel. Ceramic
	C6I3,6T2	82	VCEACU1CG227M-P	220uF	16V	± 20%	Aluminum Elect.
	C6I4,6I6	73	VCEACU1HG336M-P	33uF	50V	± 20%	Aluminum Elect.
	C6I5	78	VCEACU1HG475M-P	4.7uF	50V	± 20%	Aluminum Elect.
	C6I7	70	VCMECU1JG683J-P	.068uF	63V	± 5%	Metal Ploy. Film
*	C701,704	65	VCPEEF7EY474MX1	.47uF	AC250V	± 20%	Polypropylene Film
*	C702,703	33	VCKEDF7GY222MX3	2200PF	AC400V	± 20%	High Diel. Ceramic
	C705	36	VCKEDF7GY103MX3	.01uF	AC400V	± 20%	High Diel. Ceramic
*	C706,707	61	VCKEDF7GY472MX3	4700PF	AC400V	± 20%	High Diel. Ceramic
*	C709	16	VCEALS2GY337M--	330uF	400V	± 20%	Aluminum Elect.
	C711	84	VCEACU2EG225M-P	2.2uF	250V	± 20%	Aluminum Elect.
	C712	50	VCEACU1HG225M-P	2.2uF	50V	± 20%	Aluminum Elect.
*	C713	12	VCEACU1HG104M-P	.1uF	50V	± 20%	Aluminum Elect.
	C714,7P1	43	VCEACU1VG476M-P	47uF	35V	± 20%	Aluminum Elect.
	C715,719	53	VCEACU1HG106M-P	10uF	50V	± 20%	Aluminum Elect.
	C716	45	VCKBDU1HY472K-P	4700PF	50V	± 10%	High Diel. Ceramic
	C717	35	VCPELU1HG152J-P	1500PF	50V	± 5%	Polypropylene Film
	C726	84	VCPELU1HG103J-P	.01uF	50V	± 5%	Polypropylene Film
	C727,735	78	VCEACU1HG475M-P	4.7uF	50V	± 20%	Aluminum Elect.
	C731	79	VCSFDU1HY104Z-P	.1uF	50V	+80%-20%	Semiconductor Ceramic
*	C732,733	61	VCKEDF7GY103MX3	10NF	AC400V	± 20%	High Diel. Ceramic
	C736,718	44	VCKBDU1HY102K-P	1000PF	50V	± 10%	High Diel. Ceramic
	C737	10	VCMECU2AG222J-P	2200PF	100V	± 5%	Metal Ploy. Film
	C741~745,796	20	VCEACU1CG107M-P	100uF	16V	± 20%	Aluminum Elect.
	C755	52	VCDCDF3AH101K--	100PF	1000V	± 10%	Temp. Comp. Ceramic
	C756	04	VCEACF2EH107M--	100uF	250V	± 20%	Aluminum Elect.
	C757	88	VCEACU2EG476M-P	47uF	250V	± 20%	Aluminum Elect.
	C758,766	53	VCEACF1HG108M--	100uF	50V	± 20%	Aluminum Elect.
	C760	17	VCEACF1CG228M-P	2200uF	16V	± 20%	Aluminum Elect.
	C764	21	VCEACU1CG477M-P	470uF	16V	± 20%	Aluminum Elect.
	C765	52	VCEACU1AG107M-P	100uF	10V	± 20%	Aluminum Elect.
	C767	26	VCEACU1HG226M-P	22uF	50V	± 20%	Aluminum Elect.
	C7A2	60	VCEACU2EG226M-P	22uF	250V	± 20%	Aluminum Elect.
	CR01	20	VCENCU1CG476M--	47uF	16V	± 20%	Aluminum Elect.
	D001,005,009	89	VSD1N4148-----U	Diode		1N4148	
	D035,038	89	VSD1N4148-----U	Diode		1N4148	
	D104~113	89	VSD1N4148-----U	Diode		1N4148	
	D503	89	VSD1N4148-----U	Diode		1N4148	
	D601	34	VSDFR104-------	Diode		FR104	
	D602	01	VSDMUR115------	Diode		MUR115	
	D603	24	VSDFMQG5FMS----	Diode		FMQG5FMS	
	D604,607	89	VSD1N4148-----U	Diode		1N4148	
	D605,606	09	VSDRGP30G175---	Diode		RGP30G	
	D609,630	73	VSDSUF30J------	Diode		SUF30J	
	D610,611	89	VSD1N4148-----U	Diode		1N4148	
	D614,616~618	89	VSD1N4148-----U	Diode		1N4148	
	D615	74	VSD1N4002-----U	Diode		1N4002	
	D620	67	VSDRGP10G-----U	Diode		RGP10G	

	D621,622,631	89	VSD1N4148-----U	Diode	1N4148
	D640~644	89	VSD1N4148-----U	Diode	1N4148
	D661,663,694	89	VSD1N4148-----U	Diode	1N4148
	D664	37	VSDSF16-------U	Diode	SF16
	D6C1,6C2	03	VSDRGP02-16E--U	Diode	RGP02-16E
	D6C5	09	VSDHER305------	Diode	HER305
	D6C6,6I1,6K1	89	VSD1N4148-----U	Diode	1N4148
*	D6C7	32	VSDRGP10D-----U	Diode	RGP10D
	D701,713,714	89	VSD1N4148-----U	Diode	1N4148
	D711,754	16	VSDBYV26DGP---U	Diode	BYV26DGP
	D712	50	VSDFR103------U	Diode	FR103
	D731,741	89	VSD1N4148-----U	Diode	1N4148
	D753	85	VSDBY329X1200--	Diode	BY329X1200
	D755,756	45	VSDHER303------	Diode	HER303
	D757	25	VSDSR2100-----U	Diode	SR2100
	D759	38	VSDFR203------U	Diode	FR203
	D793,7P1,7P2	89	VSD1N4148-----U	Diode	1N4148
	D7A1	03	VSD1N4001-----U	Diode	1N4001
*	F701	03	QFS-D312S-12Y--	Fuse	3.1A/250V
	FB101~103	69	RCORA1037-1---U	Core	
	FB601	15	RCORA1021-1---U	Core	
	FB602~604	69	RCORA1037-1---U	Core	
	FB701,702	80	RCORA1004-1----	Core	
	FB703	69	RCORA1037-1---U	Core	
	FB711,711A	15	RCORA1021-1---U	Core	
	FB751	15	RCORA1021-1---U	Core	
	IC001	59	VSIP87C380-----	IC	P87C380
	IC002	49	VSIM24C08BN6---	IC	M24C08BN6
	IC003	76	VSIMC141541P---	IC	MC141541P
	IC004	35	VSIM62393P-----	IC	M62393P
	IC006	81	VSIS-80740AH---	IC	80740H
	IC101	71	VSI74LS125AN---	IC	LS125AN
	IC102	69	VSIM52055P-----	IC	M52055P
	IC106	19	VSIAT24C21-----	IC	AT24C21
	IC501	81	VSITDA8351-----	IC	TDA8351
	IC631	11	VSI74HC221-----	IC	74HC221
	IC632	15	VSILM358N------	IC	LM358N
	IC661	18	VSIUC3843------	IC	UC3843
	IC691	86	VSITDA4854-----	IC	TDA4854
	IC6C1	68	VSINJM2904D----	IC	NJM2904D
	IC711	13	VSIKA3842A-----	IC	KA3842A
*	IC712,713	15	VSIPC817C------	IC	PC817C
	IC731	89	VSITL431CZ----P	Transistor	TL431CZ
	IC791	54	VSILM2940CT12--	IC	LM2940CT12
	IC792	84	VSINJM7805FA---	IC	NJM7805
	IC793	04	VSINJM7809FA---	IC	NJM7809FA
	J266	73	VRCPTV6--182J-U	1.8K ohm	1/6W 5% Carbon Film
	L001	85	VL-DH120K0000-U	Peaking coil	12uH
	L601	48	RCILL1074-1----	Coil	
	L602	30	RCILL1075-1----	Coil	
	L603	33	RCHOM1077-1320-	Choke	
	L604	67	RCHO-1132-1----	Choke	

	L605	30	VL-DH680K0000-U	Peaking coil	68uH
	L661	49	RCHO-1139-1502B	Choke	5Mh
	L6C1	88	RCHO-1141-1502-	Choke	5Mh
	L6I1	36	RCHO-1129-1371-	Coil	Pincushion coil
	L751,752,757	47	RCHO-1103-1111-	Choke	
	L762	47	RCHO-1103-1111-	Choke	
	L831	28	VL-DH101K0000-U	Peaking Coil	100uH
	LD001	02	VSPHB5-134-----	POWER SAVING LED	
	LD002	76	VSPHB5-4063A---	STAND BY LED	
	Q001~003	01	VST2SC1815Y---P	Transistor	2SC1815Y
	Q010,012,034	82	VSIDTC144ES---P	IC	DTC144ES
	Q031,035	01	VST2SC1815Y---P	Transistor	2SC1815Y
	Q101	82	VSIDTC144ES---P	IC	DTC144ES
	Q102~104	57	VST2SC1906----P	Transistor	2SC1906
	Q120~122	57	VST2SC1906----P	Transistor	2SC1906
	Q501,502	01	VST2SC1815Y---P	Transistor	2SC1815Y
	Q503	82	VSIDTC144ES---P	IC	DTC144ES
	Q601	06	VST2SC3610----	Transistor	2SC3610----
	Q602,631,635	01	VST2SC1815Y---P	Transistor	2SC1815Y
	Q603	63	VST2SA1020Y---P	Transistor	2SA1020Y
	Q604	38	VST2SC5422-----	Transistor	2SC5422
	Q605,611,624	67	VST2SC1318R---P	Transistor	2SC1318R
	Q606,608	50	VSTIRF740------	Transistor	IRF740
	Q607,609	66	VSTKSP42------P	Transistor	KSP42
	Q612	22	VSTBD139-------	Transistor	BD139
	Q613	86	VSTBD140-------	Transistor	BD140
	Q615,622,623	87	VST2SA1015Y---P	Transistor	2SA1015Y
	Q620,629	50	VSTIRF740------	Transistor	IRF740
	Q621, 634	82	VSIDTC144ES---P	IC	DTC144ES
	Q625,630	66	VSTKSP42------P	Transistor	KSP42
	Q632	36	VSTMPS3646----P	Transistor	MPS3646
	Q661,664,691	01	VST2SC1815Y---P	Transistor	2SC1815Y
	Q663,6D3	87	VST2SA1015Y---P	Transistor	2SA1015Y
	Q665,6D4	50	VSTIRF740------	Transistor	IRF740
	Q692	63	VST2SA950Y----P	Transistor	2SC950Y
	Q693	75	VST2SC2120Y---P	Transistor	2SC2120Y
	Q694~696,6T1	82	VSIDTC144ES---P	IC	DTC144ES
	Q6C4	46	VST2SC4152-----	Transistor	2SC4152
	Q6C7	27	VST2SC1213C---P	Transistor	2SC1213C
	Q6C8	78	VST2SA673C----P	Transistor	2SA673C
	Q6C9	48	VST2SK1358-----	Transistor	2SK1358
	Q6D1	67	VST2SC1318R---P	Transistor	2SC1318R
	Q6D2,6D9	01	VST2SC1815Y---P	Transistor	2SC1815Y
	Q6I1	70	VST2SB861WC----	Transistor	2SB861WC
	Q6I2	43	VST2SB716ADTZ-P	Transistor	2SB716ADTZ
	Q6I3	23	VST2SD667AC---P	Transistor	2SD667AC
	Q6I4,6I5,6P1	01	VST2SC1815Y---P	Transistor	2SC1815Y
	Q701,712	01	VST2SC1815Y---P	Transistor	2SC1815Y
	Q711	82	VSIDTC144ES---P	IC	DTC144ES
*	Q713	86	VSTSTW11NB80---	Transistor	STW11NB80
	Q731,732	01	VST2SC1815Y---P	Transistor	2SC1815Y
	Q7A1	20	VST2SC3467E---P	Transistor	2SC3467E

Q7A2	87	VST2SC2688-----	Transistor	2SC2688			
Q7A3	75	VST2SA1480E----	Transistor	2SA1480E			
R001,004	31	VRCPTV6--221J-U	220	ohm	1/6W	5%	Carbon Film
R002	05	RNWRA2019-1332	3.3K	ohm			
R003,013,022	10	VRCPTV6--103J-U	10K	ohm	1/6W	5%	Carbon Film
R005	07	VRCPTV6--222J-U	2.2K	ohm	1/6W	5%	Carbon Film
R007	26	VRCPTV6--153J-U	15K	ohm	1/6W	5%	Carbon Film
R008,019	73	VRCPTV6--182J-U	1.8K	ohm	1/6W	5%	Carbon Film
R010	61	VRCPTV6--561J-U	560	ohm	1/6W	5%	Carbon Film
R011,012,071	78	VRCPTV6--331J-U	330	ohm	1/6W	5%	Carbon Film
R014,028	34	VRCPTV6--102J-U	1K	ohm	1/6W	5%	Carbon Film
R015,045	59	VRCPTV6--471J-U	470	ohm	1/6W	5%	Carbon Film
R016	54	VRCPTV6--332J-U	3.3K	ohm	1/6W	5%	Carbon Film
R018,035,053	74	VRMPTV6-8200F-U	82	ohm	1/6W	1%	Metal Film
R020,081,097	11	VRCPTV6--392J-U	3.9K	ohm	1/6W	5%	Carbon Film
R024,041,043	10	VRCPTV6--103J-U	10K	ohm	1/6W	5%	Carbon Film
R0254,005A	54	VRCPTV6--332J-U	3.3K	ohm	1/6W	5%	Carbon Film
R026	13	VRCPTV6--563J-U	56K	ohm	1/6W	5%	Carbon Film
R027	35	VRCPTV6--472J-U	4.7K	ohm	1/6W	5%	Carbon Film
R028,057,061	34	VRCPTV6--102J-U	1K	ohm	1/6W	5%	Carbon Film
R033,038	58	VRCPTV6--101J-U	100	ohm	1/6W	5%	Carbon Film
R034	11	VRCPTV6--473J-U	47K	ohm	1/6W	5%	Carbon Film
R036,037,039	07	VRCPTV6--222J-U	2.2K	ohm	1/6W	5%	Carbon Film
R040,042,044	58	VRCPTV6--101J-U	100	ohm	1/6W	5%	Carbon Film
R046	55	VRMPTV6-1201F-U	1.2K	ohm	1/6W	1%	Metal Film
R048	84	VRMPTV6-1501F-U	1.5K	ohm	1/6W	1%	Metal Film
R050	54	VRMPTV6-1002F-U	10K	ohm	1/6W	1%	Metal Film
R051	34	VRCPTV6--102J-U	1K	ohm	1/6W	5%	Carbon Film
R052,054,055	78	VRMPTV6-1001F-U	1K	ohm	1/6W	1%	Metal Film
R018,068	89	VRCPTV6—-821J-U	820	ohm	1/6W	5%	Carbon Film
R056,060,084	10	VRCPTV6--103J-U	10K	ohm	1/6W	5%	Carbon Film
R064	10	VRCPTV6--750J-U	75	ohm	1/6W	5%	Carbon Film
R066,091	62	VRCPTV6--682J-U	6.8K	ohm	1/6W	5%	Carbon Film
R067,075	76	VRCPTV6--393J-U	39K	ohm	1/6W	5%	Carbon Film
R069,073,074	35	VRCPTV6--472J-U	4.7K	ohm	1/6W	5%	Carbon Film
R070,098,0C4	54	VRCPTV6--332J-U	3.3K	ohm	1/6W	5%	Carbon Film
R078	76	VRCPTV6--474J-U	470K	ohm	1/6W	5%	Carbon Film
R079	14	VRCPTV6--202J-U	2K	ohm	1/6W	5%	Carbon Film
R080,0C7,0E1	34	VRCPTV6--102J-U	1K	ohm	1/6W	5%	Carbon Film
R082,083	58	VRCPTV6--101J-U	100	ohm	1/6W	5%	Carbon Film
R085~087,0C1	07	VRCPTV6--222J-U	2.2K	ohm	1/6W	5%	Carbon Film
R088,089,092	10	VRCPTV6--103J-U	10K	ohm	1/6W	5%	Carbon Film
R090	50	VRCPTV6--152J-U	1.5K	ohm	1/6W	5%	Carbon Film
R094,099	10	VRCPTV6--103J-U	10K	ohm	1/6W	5%	Carbon Film
R095	37	VRCPTV6--562J-U	5.6K	ohm	1/6W	5%	Carbon Film
R0A1	02	VRCPTV6--154J-U	150K	ohm	1/6W	5%	Carbon Film
R0A2	30	VRCPTV6--333J-U	33K	ohm	1/6W	5%	Carbon Film
R0A3,0A4	58	VRCPTV6--101J-U	100	ohm	1/6W	5%	Carbon Film
R0A7,0A8,0B1	10	VRCPTV6--103J-U	10K	ohm	1/6W	5%	Carbon Film
R0A9	75	VRCPTV6--104J-U	100K	ohm	1/6W	5%	Carbon Film
R0B4	11	VRCPTV6--392J-U	3.9K	ohm	1/6W	5%	Carbon Film
R0C2,0C3	58	VRCPTV6--101J-U	100	ohm	1/6W	5%	Carbon Film

	R0C6,0C9	10	VRCPTV6--103J-U	10K	ohm	1/6W	5%	Carbon Film
	R0E2,0E3	10	VRCPTV6--103J-U	10K	ohm	1/6W	5%	Carbon Film
	R101	87	VRCPTV4--471J-U	470	ohm	1/4W	5%	Carbon Film
	R102	64	VRCPTV2--181J-U	180	ohm	1/2W	5%	Carbon Film
	R103,104,105	86	VRCPTV6--681J-U	680	ohm	1/6W	5%	Carbon Film
	R106	72	VRCPTV6--223J-U	22K	ohm	1/6W	5%	Carbon Film
	R107	62	VRCPTV6--682J-U	6.8K	ohm	1/6W	5%	Carbon Film
	R108,111	07	VRCPTV6--222J-U	2.2K	ohm	1/6W	5%	Carbon Film
	R109,110	35	VRCPTV6--472J-U	4.7K	ohm	1/6W	5%	Carbon Film
	R112,114,115	10	VRCPTV6--750J-U	75	ohm	1/6W	5%	Carbon Film
	R116	51	VRCPTV6--273J-U	27K	ohm	1/6W	5%	Carbon Film
	R120,122,123	27	VRCPTV6--122J-U	1.2K	ohm	1/6W	5%	Carbon Film
	R131,133	35	VRCPTV6--472J-U	4.7K	ohm	1/6W	5%	Carbon Film
	R134,199	58	VRCPTV6--101J-U	100	ohm	1/6W	5%	Carbon Film
	R149	27	VRNMK01--181J--	180	ohm	1W	5%	Metal Oxide Film
	R190~192	27	VRCPTV6--122J-U	1.2K	ohm	1/6W	5%	Carbon Film
	R190A~192A	74	VRCPTV6--151J-U	150	ohm	1/6W	5%	Carbon Film
	R190B~192B	38	VRCPTV6--683J-U	68K	ohm	1/6W	5%	Carbon Film
	R501	65	VRMPTV6-7501F-U	7.5K	ohm	1/6W	1%	Metal Film
	R502	54	VRCPTV2--220J-U	22	ohm	1/2W	5%	Carbon Film
	R503	57	VRNMT02--R82J--	.82	ohm	2W	5%	Metal Oxide Film
	R505	12	VRNMK02--R22J--	.22	ohm	2W	5%	Metal Oxide Film
	R506	38	VRCPTV6--683J-U	68K	ohm	1/6W	5%	Carbon Film
	R507	48	VRNMT03--101J--	100	ohm	3W	5%	Metal Oxide Film
	R508	13	VRCPTV6--563J-U	56K	ohm	1/6W	5%	Carbon Film
	R515	10	VRCPTV6--103J-U	10K	ohm	1/6W	5%	Carbon Film
	R516,519	07	VRCPTV6--222J-U	2.2K	ohm	1/6W	5%	Carbon Film
	R517,518	72	VRCPTV6--223J-U	22K	ohm	1/6W	5%	Carbon Film
	R520	62	VRCPTV6--682J-U	6.8K	ohm	1/6W	5%	Carbon Film
	R521	17	VRCPTV6--824J-U	820K	ohm	1/6W	5%	Carbon Film
	R601,698	86	VRCPTV6--681J-U	680	ohm	1/6W	5%	Carbon Film
	R602,619	37	VRCPTV6--562J-U	5.6K	ohm	1/6W	5%	Carbon Film
	R603	51	VRNMT03--561J--	560	ohm	3W	5%	Metal Oxide Film
	R604,605,613	38	VRCPTV6--683J-U	68K	ohm	1/6W	5%	Carbon Film
	R606	29	VRCPTV2--682J-U	6.8K	ohm	1/2W	5%	Carbon Film
	R607	72	VRCPTV6--223J-U	22K	ohm	1/6W	5%	Carbon Film
	R608	30	VRNLQ03--390J--	39	ohm	3W	5%	Metal Oxide Film
	R609	43	VRNMT03--680J--	68	ohm	3W	5%	Metal Oxide Film
	R610	14	VRNMK03--R56J--	.56	ohm	3W	5%	Metal Oxide Film
	R610A	54	VRCPTV4--470J-U	47	ohm	1/4W	5%	Carbon Film
	R612	61	VRNLQ05--561J--	39	ohm	3W	5%	Metal Oxide Film
	R614,6E8	75	VRCPTV6--104J-U	100K	ohm	1/6W	5%	Carbon Film
	R615,617,6F7	35	VRCPTV2--124J-U	120K	ohm	1/2W	5%	Carbon Film
	R616,618	58	VRCPTV4--333J-U	33K	ohm	1/4W	5%	Carbon Film
	R620,650,6A4	62	VRCPTV6--682J-U	6.8K	ohm	1/6W	5%	Carbon Film
	R621	31	VRCPTV6--221J-U	220	ohm	1/6W	5%	Carbon Film
*	R622	72	VRCPTV6--223J-U	22K	ohm	1/6W	5%	Carbon Film
	R623,633,669	54	VRCPTV6--332J-U	3.3K	ohm	1/6W	5%	Carbon Film
	R625,637,6H9	03	VRCPTV6--123J-U	12K	ohm	1/6W	5%	Carbon Film
	R626,655	38	VRCPTV6--683J-U	68K	ohm	1/6W	5%	Carbon Film
	R627~630	41	VRCPTV6--823J-U	82K	ohm	1/6W	5%	Carbon Film
	R631,641	11	VRCPTV6--473J-U	47K	ohm	1/6W	5%	Carbon Film

	R632,635,638	10	VRCPTV6--103J-U	10K	ohm	1/6W	5%	Carbon Film
	R634,668,6H1	73	VRCPTV6--182J-U	1.8K	ohm	1/6W	5%	Carbon Film
	R636	28	VRCPTV2--561J-U	560	ohm	1/2W	5%	Carbon Film
	R639,6F4	31	VRMPTV6-1202F-U	12K	ohm	1/6W	1%	Metal Film
	R639A	84	VRMPTV6-9311F-U	9.31K	ohm	1/6W	1%	Metal Film
	R639B	26	VRMPTV6-2701F-U	2.7K	ohm	1/6W	1%	Metal Film
	R642,643	14	VRCPTV4--104J-U	100K	ohm	1/4W	5%	Carbon Film
	R645,6I7	26	VRCPTV6--153J-U	15K	ohm	1/6W	5%	Carbon Film
	R646	60	VRMPTV6-1502F-U	15K	ohm	1/6W	1%	Metal Film
	R647	13	VRCPTV6--563J-U	56K	ohm	1/6W	5%	Carbon Film
	R652,673,689	35	VRCPTV6--472J-U	4.7K	ohm	1/6W	5%	Carbon Film
	R653,658,685	11	VRCPTV6--473J-U	47K	ohm	1/6W	5%	Carbon Film
	R654	02	VRCPTV6--154J-U	150K	ohm	1/6W	5%	Carbon Film
	R659,690	34	VRCPTV6--102J-U	1K	ohm	1/6W	5%	Carbon Film
*	R660,664	25	VRCPTV6--100J-U	10	ohm	1/6W	5%	Carbon Film
	R661	86	VRMPTV6-5902F-U	59K	ohm	1/6W	1%	Metal Film
	R662,687,6P1	68	VRCPTV6--124J-U	120K	ohm	1/6W	5%	Carbon Film
	R663,651,683	10	VRCPTV6--103J-U	10K	ohm	1/6W	5%	Carbon Film
	R666,667	72	VRCPTV6--223J-U	22K	ohm	1/6W	5%	Carbon Film
	R670,6C4,6E3	76	VRCPTV6--393J-U	39K	ohm	1/6W	5%	Carbon Film
	R672	58	VRCPTV6--101J-U	100	ohm	1/6W	5%	Carbon Film
	R674	38	VRMPTV4-8252F-U	82.5K	ohm	1/4W	1%	Metal Film
	R675	14	VRMPTV6-6812F-U	68.1K	ohm	1/6W	1%	Metal Film
	R676	17	VRMPTV6-4021F-U	4.02K	ohm	1/6W	1%	Metal Film
	R681	35	VRCPTV6--472J-U	4.7K	ohm	1/6W	5%	Carbon Film
	R682	83	VRMPTV6-3482F-U	34.8K	ohm	1/6W	5%	Metal Film
	R684,6H4	78	VRCPTV6--331J-U	330	ohm	1/6W	5%	Carbon Film
	R686	84	VRCPTV6--753J-U	75K	ohm	1/6W	5%	Carbon Film
*	R688	75	VRCPTV6--104J-U	100K	ohm	1/6W	5%	Carbon Film
	R691	79	VRMPTV6-4701F-U	4.7K	ohm	1/6W	1%	Metal Film
	R692,697	07	VRCPTV6--222J-U	2.2K	ohm	1/6W	5%	Carbon Film
	R693	54	VRCPTV6--332J-U	3.3K	ohm	1/6W	5%	Carbon Film
	R694	37	VRCPTV6--562J-U	5.6K	ohm	1/6W	5%	Carbon Film
	R695	79	VRMPTV6-2492F-U	24.9K	ohm	1/6W	1%	Metal Film
*	R696	35	VRCPTV6--472J-U	4.7K	ohm	1/6W	5%	Carbon Film
	R699	30	VRCPTV6--333J-U	33K	ohm	1/6W	5%	Carbon Film
*	R6A2	75	VRMPTV6-1583F-U	158K	ohm	1/6W	1%	Metal Film
*	R6A3	55	VRMPTV6-2493F-U	249K	ohm	1/6W	1%	Metal Film
	R6A5,6B6,6I8	89	VRCPTV6--821J-U	820	ohm	1/6W	5%	Carbon Film
	R6A6	30	VRNMK02--100J--	10	ohm	2W	5%	Metal Oxide Film
*	R6A7	13	VRCPTV6--563J-U	56K	ohm	1/6W	5%	Carbon Film
*	R6A8	71	VRCPTV6--335J-U	3.3M	ohm	1/6W	5%	Carbon Film
*	R6A9	30	VRCPTV6--333J-U	33K	ohm	1/6W	5%	Carbon Film
	R6B1,6B2	62	VRCPTV4--102J-U	1K	ohm	1/4W	5%	Carbon Film
	R6B3	50	VRNMK02--330J--	33	ohm	2W	5%	Metal Oxide Film
	R6B7	28	VRCPTV6--560J-U	56	ohm	1/6W	5%	Carbon Film
	R6B8,6F5,6G9	72	VRCPTV6--223J-U	22K	ohm	1/6W	5%	Carbon Film
	R6C1	11	VRCPTV6--392J-U	3.9K	ohm	1/6W	5%	Carbon Film
	R6C2,6D8	14	VRCPTV4--104J-U	100K	ohm	1/4W	5%	Carbon Film
	R6C3,6C7	58	VRCPTV4--333J-U	33K	ohm	1/4W	5%	Carbon Film
	R6C5	11	VRCPTV6--473J-U	47K	ohm	1/6W	5%	Carbon Film
	R6C6,6D7,6D9	41	VRCPTV6--823J-U	82K	ohm	1/6W	5%	Carbon Film

	R6C8	42	VRCPTV2--104J-U	100K	ohm	1/2W	5%	Carbon Film
	R6C9	56	VRCPTV2--1R0J-U	1	ohm	1/2W	5%	Carbon Film
	R6D1	81	VRCPTV2--184J-U	180K	ohm	1/2W	5%	Carbon Film
	R6D2	51	VRCPTV6--273J-U	27K	ohm	1/6W	5%	Carbon Film
	R6D3,6D4	45	VRCPTV2--564J-U	560K	ohm	1/2W	5%	Carbon Film
	R6D5,6I4	13	VRCPTV6--563J-U	56K	ohm	1/6W	5%	Carbon Film
	R6D6	52	VRCPTV6--242J-U	2.4K	ohm	1/6W	5%	Carbon Film
	R6E1,6G7,6H8	41	VRCPTV6--823J-U	82K	ohm	1/6W	5%	Carbon Film
	R6E4,6E5,6F1	58	VRCPTV6--101J-U	100	ohm	1/6W	5%	Carbon Film
	R6E6	87	VRCPTV6--220J-U	22	ohm	1/6W	5%	Carbon Film
	R6E9,6K9	54	VRCPTV6--332J-U	3.3K	ohm	1/6W	5%	Carbon Film
	R6F3	38	VRMPTV6-6811F-U	6.81K	ohm	1/6W	1%	Metal Film
	R6F6	63	VRCPTV4--472J-U	4.7K	ohm	1/4W	5%	Carbon Film
*	R6F9	82	VRNMK01--R18J--	.18	ohm	1W	5%	Metal Oxide Film
*	R6G0	87	VRMPTV6-4870F-U	487	ohm	1/6W	1%	Metal Film
*	R6G1	74	VRMPTV6-5110F-U	511	ohm	1/6W	1%	Metal Film
*	R6G2	26	VRCPTV6--153J-U	15K	ohm	1/6W	5%	Carbon Film
	R6G3	27	VRCPTV6--274J-U	270K	ohm	1/6W	5%	Carbon Film
	R6G4	78	VRCPTV6--564J-U	560K	ohm	1/6W	5%	Carbon Film
	R6G5	01	VRCPTV2--102J-U	1K	ohm	1/2W	5%	Carbon Film
	R6G6	45	VRNMK01--470J--	47	ohm	1W	5%	Metal Oxide Film
	R6H0,6J2	72	VRCPTV6--223J-U	22K	ohm	1/6W	5%	Carbon Film
	R6H5	75	VRCPTV6--272J-U	2.7K	ohm	1/6W	5%	Carbon Film
	R6H6,6K2	30	VRCPTV6--333J-U	33K	ohm	1/6W	5%	Carbon Film
	R6I0	73	VRNMK02--3R9J--	3.9	ohm	2W	5%	Metal Oxide Film
	R6I1	09	VRNLQ03--4R7K--	4.7	ohm	3W	10%	Metal Oxide Film
	R6I2	53	VRNLQ03--100J--	10	ohm	3W	5%	Metal Oxide Film
	R6I3	65	VRCPTV6--822J-U	8.2K	ohm	1/6W	5%	Carbon Film
	R6I5	27	VRCPTV6--122J-U	1.2K	ohm	1/6W	5%	Carbon Film
	R6I6,6K1,6K8	10	VRCPTV6--103J-U	10K	ohm	1/6W	5%	Carbon Film
	R6I9	07	VRCPTV6--222J-U	2.2K	ohm	1/6W	5%	Carbon Film
	R6J0,6J1,6J4	07	VRCPTV6--222J-U	2.2K	ohm	1/6W	5%	Carbon Film
	R6J3	49	VRCPTV6--183J-U	18K	ohm	1/6W	5%	Carbon Film
	R6K3	13	VRNMT03--R56J--	.56	ohm	3W	5%	Metal Oxide Film
	R6K7	78	VRCPTV6--2R2J-U	2.2	ohm	1/6W	5%	Carbon Film
	R6M1,6M2	59	VRCPTV6--471J-U	470	ohm	1/6W	5%	Carbon Film
	R6P2	54	VRCPTV6--332J-U	3.3K	ohm	1/6W	5%	Carbon Film
	R6T1	75	VRCPTV6--272J-U	2.7K	ohm	1/6W	5%	Carbon Film
	R6T2	26	VRCPTV6--1R5J-U	1.5	ohm	1/6W	5%	Carbon Film
	R6X1,6X2	58	VRCPTV6--101J-U	100	ohm	1/6W	5%	Carbon Film
	R701	34	VRCPTV6--102J-U	1K	ohm	1/6W	5%	Carbon Film
	R702	10	VRCPTV6--103J-U	10K	ohm	1/6W	5%	Carbon Film
*	R703,704	30	VRCPTV4--154J-U	150K	ohm	1/4W	5%	Carbon Film
	R706	76	VRCPTV4--224J-U	220K	ohm	1/4W	5%	Carbon Film
	R707,711,712	53	VRCPTV4--184J-U	180K	ohm	1/4W	5%	Carbon Film
	R708	62	VRCPTV6--682J-U	6.8K	ohm	1/6W	5%	Carbon Film
	R714,715	55	VRCPTV4--274J-U	270K	ohm	1/4W	5%	Carbon Film
	R716,717	60	VRNMK01--823J--	82K	ohm	1W	5%	Metal Oxide Film
	R718	57	VRNMK01--683J--	68K	ohm	1W	5%	Metal Oxide Film
	R719	43	VRMMTV2--680J-U	68	ohm	1/2W	5%	Metal Film
	R720,721	75	VRCPTV6--104J-U	100K	ohm	1/6W	5%	Carbon Film
	R722	87	VRCPTV6--220J-U	22	ohm	1/6W	5%	Carbon Film

	R723	27	VRCPTV6--122J-U	1.2K ohm	1/6W	5%	Carbon Film
	R724	87	VRNMK03--R22J--	.22 ohm	3W	5%	Metal Oxide Film
	R725	70	VRNMK02--R27J--	.27 ohm	2W	5%	Metal Oxide Film
	R726	33	VRMPTV6-3012F-U	30.1K ohm	1/6W	1%	Metal Film
	R727,7P2	49	VRCPTV6--183J-U	18K ohm	1/6W	5%	Carbon Film
	R728	51	VRCPTV6--273J-U	27K ohm	1/6W	5%	Carbon Film
	R729,753	38	VRCPTV4--103J-U	10K ohm	1/4W	5%	Carbon Film
	R730	37	QJUM-1039-1540U	Jumper			
	R731,7A5	87	VRMPTV4-2673F-U	267K ohm	1/4W	1%	Metal Film
	R732	54	VRCPTV4--153J-U	15K ohm	1/4W	5%	Carbon Film
	R733	38	VRCPTV6--683J-U	68K ohm	1/6W	5%	Carbon Film
	R734	78	VRCPTV4--152J-U	1.5K ohm	1/4W	5%	Carbon Film
	R735	63	VRCPTV4--472J-U	4.7K ohm	1/4W	5%	Carbon Film
	R736,741	76	VRCPTV6--393J-U	39K ohm	1/6W	5%	Carbon Film
	R737,743	14	VRCPTV4--104J-U	100K ohm	1/4W	5%	Carbon Film
	R738	14	VRCPTV6--202J-U	2K ohm	1/6W	5%	Carbon Film
	R739	72	VRCPTV6--223J-U	22K ohm	1/6W	5%	Carbon Film
	R740	54	VRCPTV6--332J-U	3.3K ohm	1/6W	5%	Carbon Film
	R742	58	VRCPTV4--333J-U	33K ohm	1/4W	5%	Carbon Film
	R748	33	RR-NZR18J-101--	.18 ohm	1W	5%	Metal Oxide Film
	R754,755	01	VRMPTV2--472J-U	4.7K ohm	1/2W	5%	Metal Film
	R756	58	VRCPTV2--154J-U	150K ohm	1/2W	5%	Carbon Film
	R791	56	VRCPTV2--1R0J-U	1 ohm	1/2W	5%	Carbon Film
	R793	19	VRNMK01--1R0J--	1 ohm	1W	5%	Metal Oxide Film
	R794	28	VRCPTV4--1R0J-U	1 ohm	1/4W	5%	Carbon Film
	R7A2	67	VRCPTV2--392J-U	3.9K ohm	1/2W	5%	Carbon Film
	R7A3	82	VRMPTV4-1002F-U	10K ohm	1/4W	1%	Metal Film
	R7A4	60	VRMPTV4-7500F-U	75 ohm	1/4W	1%	Metal Film
	R7A6	45	VRNMK01--153J--	15K ohm	1W	5%	Metal Oxide Film
	R7A7	41	VRCPTV4--563J-U	56K ohm	1/4W	5%	Carbon Film
	R7A8	87	VRNMK01--3R9J--	3.9 ohm	1W	5%	Metal Oxide Film
	R7P1	30	VRCPTV6--333J-U	33K ohm	1/6W	5%	Carbon Film
	RP97	10	VRCPTV6--103J-U	10K ohm	1/6W	5%	Carbon Film
	RV81	38	VRCPTV6--683J-U	68K ohm	1/6W	5%	Carbon Film
	RL601,603,604	85	RRLYD1088-1DXG-	Relay			
	RL602	78	RRLYD1085-1DDG-	Relay			
*	RL701	33	RRLYD1080-1PDG-	Relay			
	RGB181,182	07	QSOCD1550-115--	D-SUB 15P			
	RGB183	40	QSOCD1558-124--	D-SUB 9P			
	SG601	29	QSPG-1011-1---U	SPARK GAP			
*	SO701	64	QSOCP1042-12X--	Socket			
	T601	26	RTRND1060-1----	Horizontal Driver Transformer			
	T602	39	RTRN-1060-1----	Transformer			
	T603,604	68	RTRN-1059-1----	Transformer			
	T6C1	14	RTRNF1006-1----	Dynamic Focus Transformer			
*	T6C2	31	DFBTSV0090D660-	FBT			
*	T701	02	RCVTP1381-1----	Convert transformer			
*	T702	10	RCILF1088-1----	Coil			
*	T703	68	RCILF1080-1----	Coil			
*	TH701	24	VSH20S050M-----				
*	TH702	49	VSQDGC2R9R0Q---				
	VR601	66	RVRSH6032-1502-	Variable Resistor	5K ohm		

	VR691	70	RVRSH8003-8104-	Variable Resistor 100K ohm	
	VR731	05	RVRSH6032-1501-	Variable Resistor 500 ohm	
*	VZ701	40	VSVV14K300-----		
	X001	41	RCRSL1045-1----	Crystal	12MHZ
	ZD001	64	VSZMTZJ5.1B---U	Zener Diode	MTZJ5.1B
	ZD005,007	61	VSZHZ5C1------U	Zener Diode	HZ5C1
	ZD101	61	VSZHZ5C1------U	Zener Diode	HZ5C1
	ZD110	23	VSZHZ12A1-----U	Zener Diode	HZ12A1
	ZD111~114	64	VSZMTZJ5.1B---U	Zener Diode	MTZJ5.1B
	ZD102,123,125	64	VSZMTZJ5.1B---U	Zener Diode	MTZJ5.1B
	ZD601,605,606	64	VSZMTZJ5.1B---U	Zener Diode	MTZJ5.1B
	ZD603,604	80	VSZHZ12C1-----U	Zener Diode	HZ12C1
	ZD608	49	VSZMTZ9.1B----U	Zener Diode	MTZ9.1B
	ZD611,612	80	VSZHZ12C1-----U	Zener Diode	HZ12C1
	ZD661,6C2	22	VSZRD15EB3----U	Zener Diode	RD15EB3
	ZD6C1	35	VSZHZ20-02----U	Zener Diode	HZ20-02
	ZD711,731	23	VSZHZ12A1-----U	Zener Diode	HZ12A1
	ZD712	70	VSZHZ18-2-----U	Zener Diode	HZ18-2
	ZD713	61	VSZHZ5C1------U	Zener Diode	HZ5C1
	ZD7A1	54	VSZMTZ6.8B----U	Zener Diode	MTZ6.8B
	“D”	02	QCNCP1547-1----	Connector With Wire	
	“GND1,2”	50	QCNCP1517-1----	Connector With Wire	
		62	VCNCP0022-----U	Connector TH701 USE	
	“M”	62	VCNCP0022-----U	Connector	
	“O”	03	QCNCP1542-1----	Connector With Wire	
	“RO”	42	QCNCP1540-1----	Connector With Wire	
	“U”	09	VCNCP0305-EJST-	Connector	
	CV	80	QCNWS0046-1151-	Connector With Wire	
	HS	36	QCNWS0047-1063-	Connector With Wire	
	KH	82	QCNWS0049-1051-	Connector With Wire	
	TM	51	QCNWS0306-1104-	Connector With Wire	
	A	48	QCNWS0307-1069-	Connector With Wire	
	A1	57	QCNWS0303-1304-	Connector With Wire	
	DB	39	QCNWS030B-1019-	Connector With Wire	
	PI	77	QCNWS030A-1021-	Connector With Wire	
	VS	67	QCNWS030B-1018-	Connector With Wire	
	PO	12	QCNWS0044-1272-	Connector With Wire	
	FR1	57	QCNWS0309-1037-	Connector With Wire	
	RS	65	QCNWS0305-1189-	Connector With Wire	
	PS	46	QCNWS0303-1296-	Connector With Wire	
		21	GHLDP0068-1FD--	LED HOLD FOR POWER, SAVING, STAND BY USE	
		43	QSW-A1199-11-1A	VOL +/-, MENU +/-, DEGAUSS, I/P SW	
		04	QSW-A1198-11-1-	POWER SW	
		03	VSI93M2AKLSH---	R/C RECEUVER	
		13	LANGF0729-1P--A	AC & RS232 ANGLE	
		76	LFIX-0016-1P---	FIX PLATE	
		68	PCUSG0219-1----	Silicon Rubber Q6I1 USE	
		85	PCUSP0054-1----	Silicon Rubber Q6C9,Q713 USE	
		31	PCUSP0057-1----	Silicon Rubber Q6I1 USE	
		64	PCUSU0131-1----	Cushion EVA FOR FBT	
		58	PISLM0015-1P---	Insulator Q604 USE	
		60	PRDAA0117-1P--I	RADIATOR Q6I1 USE	

84	PRDAA0140-1P--B	RADIATOR Q665,Q6D4 USE
89	PRDAA0143-1P---	RADIATOR D753,IC791,IC793, Q606,Q620 USE
57	PRDAA0143-1P--A	RADIATOR Q7A2 USE
65	PRDAA0164-1P—-E	RADIATOR IC501 USE
06	PRDAA0170-1P—-C	RADIATOR BR701,Q713 USE
77	PRDAA0171-1P---	RADIATOR Q601,Q612,Q613 USE
14	PRDAA0176-1P--B	RADIATOR D603,Q604,6C9 USE
16	PRDAM0035-1P---	RADIATOR D609,630,D755,D756 USE
71	QFSHC1017-1---P	F701 USE
71	QJAKM1076-1----	RGB-Audio jack
65	QPINR1069-1----	PIN R503,507,603,609,6K3 USE
08	QSOCI1177-108--	IC socket IC002 USE
76	QSOCI1517-142--	IC socket IC001 USE
46	XBPSD30P06000--	SCREW PRDAA0171*3 USE
39	XBPSD30P10000--	SCREW D753,IC791,IC793,Q606,Q620,Q665,Q6D4,Q7A2 USE
58	XEASD30P10000--	SCREW FBT*2
74	XHISE40P08TV0--	SCREW LANGF0729*1
77	XJASD30P10000--	SCREW Q6I1,PRDAA0170*2,PRDAA0176*4 USE
82	XJJSD30P10000--	SCREW IC501*2 USE
66	XLMAZ32-89000--	SCREW SO701 USE

	87	BRC-229B-------	R/C
	20	DBOXS0014-1FD-Z	DOME SPK
	48	DCABA0243-1F--O	FORNT CAB
	19	GBOX-0008-1FD-B	DOME SPK GUIDE
	77	GBOXS0014-1FD-B	DOME SPK BOX
	42	GCABA0243-1F--O	CAB-A
	23	GCABB0285-1F--B	CAB-B
	41	GCOVE0125-1F---	R/C COVER
	56	GCOVS0008-1FD-B	GUIDE COVER
	69	GDORP0217-1F--B	DOOR
	86	GNETP0030-1P---	PET FOR CABA
	84	HBDGA0090-1G--A	“PICTURE-TEL”MARK
	75	HDECP0362-1F--J	AV FUNCTION PANEL
	78	HINDP0408-1P--B	IND-P
	02	HINDP0374-1P---	TRANSPARENCY FOR FBT
	70	JHNDP0020-1----	HANDLE SET
	41	JKNBP0572-1F--A	POWER KNOB
	50	LCHSP0023-1F---	CHASSIS
	76	LFIX-0016-1P---	FIX PLATE
	24	LHLD-0258-1----	DOOR LOCKER
	15	LHLDW0084-1----	ROTATION COIL
	32	LX-EZ0008-1---A	CRT USE
	14	MDMP-1004-3FZ-D	DAMPER
	81	MSPR-0003-1----	SPRING FOR CRT
	04	PCUSS0061-1----	SPONGE FOR CRT SHIELD
	16	PMAG-1108-1A---	CRT USE
	37	PREFL0041-1F---	LIGHT GUIDER
	56	PSLDM0276-1P--C	CRT PWB BOX
	37	PSPAG0021-1---D	CRT SPACER
	21	PWABS0017-1---A	WAVE ABSOPTION GBOXS0014(L*1, R*1)
	37	PWABS0027-1----	WAVE ABSOPTION GBOX-0008(L*2, R*2)
	01	PWABS0029-1----	WAVE ABSOPTION GBOXS0008(L*1, R*1)
	58	PWABS0032-1---A	WAVE ABSOPTION GBOX-0008 (L*1, R*1)
	40	PWABS0031-1----	WAVE ABSOPTION DOME SPK WABS
	22	PWABS0032-1----	WAVE ABSOPTION GBOX-0008 (L*1, R*1)
*	87	QACCF1063-1DX--	AC CORD
	24	QCODS1039-1D---	SIGNAL CABLE
	67	QPLGR1199-1----	AUDIO CABLE
	79	QTMLA1113-1F—I	ANT PANEL
	18	RBATB0213-1DC--	BATTERY (3)
*	42	RCILG1101-1----	DEGAUSSING COIL
	05	RCILQ1014-1----	ROTATION COIL
	23	RSPKER086-18TN-	SPEAKER SPK L-HI,R-HI
	63	RSPKKS096-18WN-	SPK L-LOW, R-LOW
	55	SPAKA0648-1F---	PACKING AD
	63	SPAKC0706-1R--D	PACKING CASE
	12	SPAKH0079-1FW-C	HOSO-PP
	29	SSAKD0003-1----	FOR MANUAL
	54	SSAKH0128-1-T--	POLY SACK
	08	TINSE1952-1---A	USER MANUAL
	56	TLABD1025-1B--A	BAR CODE
	67	TLABD1123-1B---	WARNING LABEL

	59	TLABM1141-1----	MODEL LABEL
*	46	VBM68QDY259X02-	CRT
	58	XEASD30P10000--	SCREW MAIN PWB*9, TWEETER*4, FIX POWER PWB, FUNCTION CHASSIS*2, VM PWB*2, LIGHT GUIDE, DAMPER
	44	XETSD40P10000--	SCREW SPK FIX
	58	XEASD30P10000--	SCREW VM PWB*2
	47	XHSSB30P12000--	SCREW LANGP0182*3
	77	XJASD30P10000--	SCREW PRDAA0170*2,PRDAA0117*2,PRADD0164*2, QTMLW0002*1
	60	XTTSB40P20000--	CAB-A/B*7,QTMLA*4
	54	PCUSG0257-1F---	SPEAK CUSHION
	36	PCUSG0258-1F---	CUSHION FOR CABB AND SPACK
	12	LX-EZ0001-1----	SPACK & DOME USE
	25	XEASD30P80000--	POWER*2,TWETER*4,DAMPER*1,POWER*1
	67	PSPAG0021-1---C	CRT SPACER
	47	XTTSD30P12000--	CHASSIS & CAB-A FIX
	62	PCUSG0270-1F---	LANGS0069 & CAB USE
	30	XETSD40P16000--	GCOVS0008 & GCOV-0008 FIX,LANGT &DOME 4*4
	42	LANGS0065-1P--A	DOME SPK*2
	24	LANGS0066-1P--A	DOME SPK*2
	77	PCUSS0071-1----	SPACK & CRT
	59	PCUSS0072-1----	SPACK CAB'B HOLE
	09	PCUSS0070-1----	SPACK & CAB'A

2.AUDIO POWER BOARD

PWB	30	QPWB51078-1B-2-	POWER / SOUND AMP BOARD			
C301,308,312	78	VCEACU1HG475M-P	4.7uF	50V	± 20%	Aluminum Elect.
C302,307	15	VCEACU1HG564M-P	.56uF	50V	± 20%	Aluminum Elect.
C303,306	50	VCPELU1HG822J-P	8200PF	50V	± 5%	Polypropylene Film
C304,305	13	VCEACU1HG474M-P	.47uF	50V	± 20%	Aluminum Elect.
C309,311	53	VCEACU1HG106M-P	10uF	50V	± 20%	Aluminum Elect.
C310	85	VCPELU1HG473J-P	.047uF	50V	± 5%	Polypropylene Film
C313,315	19	VCENCU1CG106M-P	10uF	16V	± 20%	Aluminum Elect.
C318	50	VCEACU1HG225M-P	2.2uF	50V	± 20%	Aluminum Elect.
C321	45	VCEACU1CG476M-P	47uF	16V	± 20%	Aluminum Elect.
C322~324	77	VCEACU1HG105M-P	1uF	50V	± 20%	Aluminum Elect.
C325	78	VCEACU1HG475M-P	4.7uF	50V	± 20%	Aluminum Elect.
C327,331	05	VCDCDU1HH560J-P	56PF	50V	± 20%	Temp. Comp. Ceramic
C328,333	32	VCEACU1HG334M-P	.33uF	50V	± 20%	Aluminum Elect.
C329,334	74	VCEACU1HG224M-P	.22uF	50V	± 20%	Aluminum Elect.
C332,342	53	VCEACU1HG106M-P	10uF	50V	± 20%	Aluminum Elect.
C338,340	60	VCPELU1HG104J-P	.1uF	50V	± 5%	Polypropylene Film
C339,341	13	VCEACU1HG474M-P	.47uF	50V	± 20%	Aluminum Elect.
C343,356,357	57	VCPELU1HG223J-P	.022uF	50V	± 5%	Polypropylene Film
C345,347	53	VCPELU1HG124J-P	.12uF	50V	± 5%	Polypropylene Film
C346	21	VCEACU1CG477M-P	470uF	16V	± 20%	Aluminum Elect.
C351,352	32	VCEACU1HG334M-P	.33uF	50V	± 20%	Aluminum Elect.
C358,359	83	VCEACU1VG108M-P	1000uF	35V	± 20%	Aluminum Elect.
C366,367	17	VCKBDU1HY222K-P	2200PF	50V	± 10%	High Diel. Ceramic
C368	85	VCEACU1CG108M-P	1000uF	16V	± 20%	Aluminum Elect.
C374,375	17	VCKBDU1HY222K-P	2200PF	50V	± 10%	High Diel. Ceramic
C376	02	VCEACU1HG227M-P	220uF	50V	± 20%	Aluminum Elect.
C385	77	VCEACU1EG107M-P	100uF	25V	± 20%	Aluminum Elect.
C386	29	VCEACU1HG107M-P	100uF	50V	± 20%	Aluminum Elect.
C387,388	13	VCEACU1HG474M-P	.47uF	50V	± 20%	Aluminum Elect.
C780	28	VCEACU2GG226M-P	22uF	400V	± 20%	Aluminum Elect.
C781	26	VCEACU1HG226M-P	22uF	50V	± 20%	Aluminum Elect.
C782	20	VCPELU1HG472J-P	4700PF	50V	± 5%	Polypropylene Film
C783	23	VCPELU1HG683J-P	.068uF	50V	± 5%	Polypropylene Film
C784	12	VCEACU1HG104M-P	.1uF	50V	± 20%	Aluminum Elect.
C785	38	VCPPHF2JG183J--	.018uF	630V	± 5%	Polypropylene Film
* C786,787	61	VCKEDF7GY472MX3	4700PF	AC400V	± 20%	High Diel. Ceramic
C788	62	VCRRDF3DY471K--	470PF	2KV	± 10%	High Dielectric Ceramic
C789	73	VCEACF1HG338M--	3300uF	50V	± 20%	Aluminum Elect.
C790	79	VCSFDU1HY104Z-P	.1uF	50V	+80%-20%	Semiconductor Ceramic
C791	37	VCRRDF3DY102K--	1000PF	2KV	± 10%	High Dielectric Ceramic
C792,795	77	VCEACU1EG107M-P	100uF	25V	± 20%	Aluminum Elect.
C798	44	VCKBDU1HY102K-P	1000PF	50V	± 10%	High Diel. Ceramic
C799	17	VCKBDU1HY222K-P	2200PF	50V	± 10%	High Diel. Ceramic
D301~309,316	89	VSD1N4148-----U	Diode	1N4148		
D786	50	VSDFR103------U	Diode	FR103		
D788	30	VSDUR1K-------U	Diode	UR1K		
D789	73	VSDSUF30J-----U	Diode	SUF30J		

D790	37	VSDSF16-------U	Diode	SF16				
F301	81	QFS-D202F-12X--	Fuse	2A/250V				
FB781	32	RCORA1025-1---U	Core					
FB782	80	RCORA1004-1---U	Core					
FB783~788	78	RCORA1026-1---U	Core					
IC301	27	VSITA8184P-----	IC	TA8184P				
IC302	52	VSIMC14066BCP--	IC	MC14066BCP				
IC303~309	20	VSINJM4558D----	IC	NJM4558D				
IC310	68	VSINJM2904D----	IC	NJM2904D				
IC311	89	VSITDA2616-----	IC	TDA2616				
IC716	84	VSIVIPER100----	IC	VIPER100				
* IC717	15	VSIPC817C------	IC	PC817C				
IC781	38	VSILM2940CT5---	IC	LM2940CT5				
IC782	89	VSITL431CZ----P	IC	TL431CZ				
Q301,302,304	82	VSIDTC144ES---P	IC	DTC144ES				
Q303	01	VST2SC1815Y---P	Transistor	2SC1815Y				
R301,305	58	VRMHNVG--472J-A	4.7K	ohm	1/8W	5%	Metal Film	
R302	08	VRNMK01--2R2J--	2.2	ohm	1W	5%	Metal Oxide Film	
R303,307,308	06	VRMHNVG--223J-A	22K	ohm	1/8W	5%	Metal Film	
R304,306	57	VRMHNVG--102J-A	1K	ohm	1/8W	5%	Metal Film	
R309	41	VRMHNVG--823J-A	82K	ohm	1/8W	5%	Metal Film	
R310,311	57	VRMHNVG--102J-A	1K	ohm	1/8W	5%	Metal Film	
R312~317	34	VRMHNVG--473J-A	47K	ohm	1/8W	5%	Metal Film	
R318,343,368	53	VRMHNVG--333J-A	33K	ohm	1/8W	5%	Metal Film	
R322,327	34	VRMHNVG--392J-A	3.9K	ohm	1/8W	5%	Metal Film	
R323,326	26	VRMHNVG--123J-A	12K	ohm	1/8W	5%	Metal Film	
R324,325	88	VRMHNVG--822J-A	8.2K	ohm	1/8W	5%	Metal Film	
R328,329,333	33	VRMHNVG--103J-A	10K	ohm	1/8W	5%	Metal Film	
R330~332	34	VRMHNVG--392J-A	3.9K	ohm	1/8W	5%	Metal Film	
R334,335	88	VRMHNVG--822J-A	8.2K	ohm	1/8W	5%	Metal Film	
R336,337	34	VRMHNVG--392J-A	3.9K	ohm	1/8W	5%	Metal Film	
R338~341	26	VRMHNVG--123J-A	12K	ohm	1/8W	5%	Metal Film	
R342,379	36	VRMHNVG--563J-A	56K	ohm	1/8W	5%	Metal Film	
R344,345,347	57	VRMHNVG--102J-A	1K	ohm	1/8W	5%	Metal Film	
R346,348	85	VRMHNVG--682J-A	6.8K	ohm	1/8W	5%	Metal Film	
R349,353,354	58	VRMHNVG--472J-A	4.7K	ohm	1/8W	5%	Metal Film	
R350,355	34	VRMHNVG--392J-A	3.9K	ohm	1/8W	5%	Metal Film	
R351,352,356	88	VRMHNVG--822J-A	8.2K	ohm	1/8W	5%	Metal Film	
R357,358	09	VRMHNVG--272J-A	2.7K	ohm	1/8W	5%	Metal Film	
R359,360,363	58	VRMHNVG--472J-A	4.7K	ohm	1/8W	5%	Metal Film	
R361,362,364	33	VRMHNVG--103J-A	10K	ohm	1/8W	5%	Metal Film	
R365,366	58	VRMHNVG--472J-A	4.7K	ohm	1/8W	5%	Metal Film	
R367	88	VRMHNVG--822J-A	8.2K	ohm	1/8W	5%	Metal Film	
R369	33	VRMHNVG--103J-A	10K	ohm	1/8W	5%	Metal Film	
R370	77	VRMHNVG--332J-A	3.3K	ohm	1/8W	5%	Metal Film	
R371	12	VRMHNVG--564J-A	560K	ohm	1/8W	5%	Metal Film	
R372,373	34	VRMHNVG--392J-A	3.9K	ohm	1/8W	5%	Metal Film	
R374,375	34	VRMHNVG--473J-A	47K	ohm	1/8W	5%	Metal Film	
R376,383	57	VRMHNVG--102J-A	1K	ohm	1/8W	5%	Metal Film	
R377,381,385	53	VRMHNVG--333J-A	33K	ohm	1/8W	5%	Metal Film	
R378	25	VRMHNVG--154J-A	150K	ohm	1/8W	5%	Metal Film	
R380	30	VRMHNVG--222J-A	2.2K	ohm	1/8W	5%	Metal Film	

R382,384,390	36	VRMHNVG--563J-A	56K	ohm	1/8W	5%	Metal Film
R386,387	12	VRNMK02--R22J--	.22	ohm	2W	5%	Metal Oxide Film
R388,389	07	VRMHNVG--182J-A	1.8K	ohm	1/8W	5%	Metal Film
R393,394	49	VRMHNVG--153J-A	15K	ohm	1/8W	5%	Metal Film
R397,398	75	VRCPTV4--8R2J-U	8.2	ohm	1/4W	5%	Carbon Film
R399,3C8	09	VRMHNVG--272J-A	2.7K	ohm	1/8W	5%	Metal Film
R3A0,3A1	07	VRMHNVG--182J-A	1.8K	ohm	1/8W	5%	Metal Film
R3A2,3A3	88	VRMHNVG--822J-A	8.2K	ohm	1/8W	5%	Metal Film
R3A4	09	VRMHNVG--104J-A	100K	ohm	1/8W	5%	Metal Film
R3A7	25	VRMHNVG--154J-U	150K	ohm	1/8W	5%	Metal Film
R784	34	VRCPTV6--102J-U	1K	ohm	1/6W	5%	Carbon Film
R785	11	VRCPTV6--392J-U	3.9K	ohm	1/6W	5%	Carbon Film
R786	62	VRMPTV2--4R7J-U	4.7	ohm	1/2W	5%	Metal Film
R787	31	VRNMK02--153J--	15K	ohm	2W	5%	Metal Oxide Film
R790	60	VRNMK01--150J--	15	ohm	1W	5%	Metal Oxide Film
R792	35	VRCPTV6--472J-U	4.7K	ohm	1/6W	5%	Carbon Film
R794	76	VRCPTV6--393J-U	39K	ohm	1/6W	5%	Carbon Film
R795	01	VRMPTV2--472J-U	4.7K	ohm	1/2W	5%	Metal Film
R797	72	VRCPTV6--223J-U	22K	ohm	1/6W	5%	Carbon Film
* T781	77	RCVTP1397-1-U--	Convert Transformer				
ZD781	78	VSZMTZ3.9B----U	Zener Diode		MTZ3.9B		
“A”	62	VCNCP0307-EJST-	Connector				
“A1”	45	VCNCP0303-EJST-	Connector				
“D”	02	QCNCP1547-1----	Connector With Wire				
“GND”GND1”	50	QCNCP1517-1----	Connector With Wire				
LO	12	QCNWS0092-1037-	Connector With Wire				
SF	18	QCNWS0303-1297-	Connector With Wire				
GND2	67	QCNWS0651-1067-	Connector With Wire				
	01	LANGF0777-1P---	QPWB51059*1 ANGLE				
	72	LANGF0778-1P---	QPWB51059*1 ANGLE				
	48	PRDAA0025-1P--V	RADIATOR IC311 USE				
	59	PRDAA0032-1A--H	RADIATOR IC716 USE				
	89	PRDAA0143-1P---	RADIATOR IC781 USE				
	71	QFSHC1017-1---P	PIN F301 USE				
	39	XBPSD30P10000--	SCREW IC781 USE				
	77	XJASD30P10000--	SCREW IC716*1				
	82	XJJSD30P10000--	SCREW IC311*2				

3.CRT BOARD

CRT PWB	12	QPWB51022-1B-3-	CRT BOARD				
C901,903,904	12	VCEACU1HG104M-P	.01uF	50V	± 20%	Aluminum Elect.	
C902,908,910	20	VCEACU1CG107M-P	100uF	16V	± 20%	Aluminum Elect.	
C905,907,915	20	VCKBDU1HY103K-P	.01uF	50V	± 10%	High Diel. Ceramic	
C906	53	VCEACU1HG106M-P	10uF	50V	± 20%	Aluminum Elect.	
C909,914	45	VCKBDU1HY391K-P	390PF	50V	± 10%	Temp. Comp. Ceramic	
C911,913,916	20	VCEACU1CG107M-P	100uF	16V	± 20%	Aluminum Elect.	
C912	69	VCKBDU1HY471K-P	470PF	50V	± 10%	Temp. Comp. Ceramic	
C917	13	VCEACU1EG476M-P	47uF	25V	± 20%	Aluminum Elect.	
C921,925,926	20	VCKBDU1HY103K-P	.01uF	50V	± 10%	High Diel. Ceramic	
C922	54	VCKBDF2HY103K--	.01uF	500V	± 10%	High Diel. Ceramic	
C924	74	VCEACU1HG224M-P	.22uF	50V	± 20%	Aluminum Elect.	
C971	87	VCEACU2EG106M-P	10uF	250V	± 20%	Aluminum Elect.	
C972	84	VCEACU2EG225M-P	2.2uF	250V	± 20%	Aluminum Elect.	
C973	26	VCKBEF3DY103Z--	.01uF	2KV	+80%-20%	High Diel. Ceramic	
D901~908	89	VSD1N4148-----U	Diode	1N4148			
D909~911	12	VSD1SS83------U	Diode	1SS83			
D971	74	VSD1N4002-----U	Diode	1N4002			
FB901~903	15	RCORA1021-1---U	Bead cord				
FB904,905	27	RCORA1033-1----	Bead cord				
IC901	12	VSITDA4885-----	IC	TDA4885			
L901	20	VL-PH100K0000-P	Peaking Coil	10uH			
L902,972,974	21	VL-PH470K0000-P	Peaking Coil	47uH			
L971,973,975	13	VL-NH3R3K0000-P	Peaking Coil	3.3uH			
Q901	61	VST2SC2482-----	Transistor	2SC2482			
Q902,904,906	01	VST2SC1815Y---P	Transistor	2SC1815Y			
Q903,905,907	46	VST2SC3790E----	Transistor	2SC3790E			
Q908,972,974	15	VST2SA1480E----	Transistor	2SA1480E			
Q909,971,973	46	VST2SC3790E----	Transistor	2SC3790E			
Q910	87	VST2SA1015Y---P	Transistor	2SA1015Y			
R901~904	10	VRCPTV6--103J-U	10K ohm	1/6W	5%	Carbon Film	
R905	58	VRCPTV6--101J-U	100 ohm	1/6W	5%	Carbon Film	
R906~908	58	VRCPTV6--101J-U	100 ohm	1/6W	5%	Carbon Film	
R909,912	51	VRCPTV6--121J-U	120 ohm	1/6W	5%	Carbon Film	
R910,913,915	53	VRCPTV6--680J-U	68 ohm	1/6W	5%	Carbon Film	
R911,914,916	07	VRCPTV6--222J-U	2.2K ohm	1/6W	5%	Carbon Film	
R917~919	58	VRCPTV6--101J-U	100 ohm	1/6W	5%	Carbon Film	
R920,921	31	VRCPTV6--221J-U	220 ohm	1/6W	5%	Carbon Film	
R922,924	51	VRCPTV6--121J-U	120 ohm	1/6W	5%	Carbon Film	
R923,956	26	VRCPTV6--153J-U	15K ohm	1/6W	5%	Carbon Film	
R925	49	VRCPTV6--183J-U	18K ohm	1/6W	5%	Carbon Film	
R926,933,940	35	VRCPTV6--472J-U	4.7K ohm	1/6W	5%	Carbon Film	
R927	53	VRCPTV6--680J-U	68 ohm	1/6W	5%	Carbon Film	
R928,935,942	74	VRCPTV6--151J-U	150 ohm	1/6W	5%	Carbon Film	
R929	32	VRCPTV6--6R8J-U	6.8 ohm	1/6W	5%	Carbon Film	
R930,934,939	53	VRCPTV6--680J-U	68 ohm	1/6W	5%	Carbon Film	
R931,937,944	53	VRCPTV4--184J-U	180K ohm	1/4W	5%	Carbon Film	
R932,938,945	55	VRMPTV6-5761F-U	5.76K ohm	1/6W	1%	Metal Film	
R936	18	VRCPTV6--120J-U	12 ohm	1/6W	5%	Carbon Film	
R941,946	53	VRCPTV6--680J-U	68 ohm	1/6W	5%	Carbon Film	

R943	87	VRCPTV6--220J-U	22	ohm	1/6W	5%	Carbon Film
R947,948	05	VRCPTV4--270J-U	27	ohm	1/4W	5%	Carbon Film
R949,976,984	53	VRCPTV4--100J-U	10	ohm	1/4W	5%	Carbon Film
R950~952	31	VRNMK02--153J--	15K	ohm	2W	5%	Metal Oxide Film
R953,954,957	10	VRCPTV6--103J-U	10K	ohm	1/6W	5%	Carbon Film
R955	30	VRCPTV6--333J-U	33K	ohm	1/6W	5%	Carbon Film
R961~963	31	VRCPTV6--221J-U	220	ohm	1/6W	5%	Carbon Film
R971,980,988	82	VRCPTV2--470J-U	47	ohm	1/6W	5%	Carbon Film
R972,979,987	62	VRCPTV6--682J-U	6.8K	ohm	1/6W	5%	Carbon Film
R973~975	31	VRNMK02--153J--	15K	ohm	2W	5%	Metal Oxide Film
R977,978	05	VRCPTV4--270J-U	27	ohm	1/4W	5%	Carbon Film
R981~983	31	VRNMK02--153J--	15K	ohm	2W	5%	Metal Oxide Film
R985,986	05	VRCPTV4--270J-U	27	ohm	1/4W	5%	Carbon Film
R989	62	VRCPTV4--102J-U	1K	ohm	1/6W	5%	Carbon Film
R990	24	VRCPTV6--225J-U	2.2M	ohm	1/6W	5%	Carbon Film
R991	69	VRCPTV2--563J-U	56K	ohm	1/2W	5%	Carbon Film
R993	80	RR-HZ106M-1V4--	10M	ohm	1/4W	20%	H.V. Resistance
SG974	13	QSPG-1009-1---U	Spark Gap				
SG971~973	82	QSPG-1013-1---U	Spark Gap				
SG975	50	QSPG-1010-1---U	Spark Gap				
*	66	QSOCC1353-112--	CRT SOCKET				
“CV”	09	VCNCP0046-JJST-	Connector				
“G”	68	VCNCP0102-PJST-	Connector				
“HS”	80	VCNCP0047-JJST-	Connector				
“KH”	44	VCNCP0049-JJST-	Connector				
“PO”	45	VCNCP0044-JJST-	Connector				
	54	PRDAA0140-1P--C	RADIATOR Q903,905,907 USE				
	39	XBPSD30P10000--	SCREW Q903,905,907 USE				
	44	XJASD30P08000--	SCREW AUDIO PWB & ANGLE*2 USE				

4. VM BOARD

VM PWB	13	QPWB11275-1BA2-	VM PWB				
CV1,V13	45	VCEACU1CG476M-P	47uF	16V		± 20%	Aluminum Elect.
CV6	50	VCPELU1HG822J-P	8200PF	50V		± 5%	Polypropylene Film
CV7	71	VCKBDU1HY561K-P	560PF	50V		± 10%	High Diel. Ceramic
CV8	09	VCKFDU1HY103Z-P	.01uF	50V		± 20%	High Diel. Ceramic
CV09	79	VCSFDU1HY104Z-P	.01uF	50V		+80%-20%	Semiconductor Ceramic
CV10,V11	50	VCEACU1HG225M-P	2.2uF	50V		± 20%	Aluminum Elect.
CV12	44	VCKBDU1HY102K-P	1000PF	50V		± 10%	High Diel. Ceramic
CV14,V16	79	VCKBDF2HY472K--	4700PF	500V		± 10%	High Diel. Ceramic
CV15,V17	75	VCDSDU1HL101J-P	100PF	50V		± 5%	Temp. Comp. Ceramic
CV18,19	15	VCEACU2DG476M-P	47uF	200V		± 20%	Aluminum Elect.
CV21	31	VCDSDU2HL560J-P	56PF	50V		± 5%	Temp. Comp. Ceramic
CV22,V23	14	VCEACU2DG106M-P	10uF	200V		± 20%	Aluminum Elect.
DV1~V4	89	VSD1N4148-----U	Diode		1N4148		
DV5,V6	39	VSD1SS11914TA-U	Diode		1SS11914TA		
DV7,V8	61	VSDRH1S--------	Diode		RH1S		
FBV1,V2	15	RCORA1021-1----	Bead cord				
QV10	87	VST2SA1015Y---P	Transistor		2SC1015Y		
QV11	25	VST2SC1837-----	Transistor		2SC1837		
QV12	36	VST2SC4793-----	Transistor		2SC4793		
QV2,V4~V9	01	VST2SC1815Y---P	Transistor		2SC1815Y		
RV3	61	VRCPTV6--561J-U	560	ohm	1/6W	5%	Carbon Film
RV6,V43	72	VRCPTV6--223J-U	22K	ohm	1/6W	5%	Carbon Film
RV10	07	VRCPTV6--222J-U	2.2K	ohm	1/6W	5%	Carbon Film
RV11	34	VRCPTV6--102J-U	1K	ohm	1/6W	5%	Carbon Film
RV12	25	VRCPTV6--471J-U	470	ohm	1/6W	5%	Carbon Film
RV13	86	VRCPTV6--681J-U	680	ohm	1/6W	5%	Carbon Film
RV14,V28,V33	50	VRCPTV6--152J-U	1.5K	ohm	1/6W	5%	Carbon Film
RV15	28	VRCPTV6--560J-U	56	ohm	1/6W	5%	Carbon Film
RV16,V17	11	VRCPTV6--392J-U	3.9K	ohm	1/6W	5%	Carbon Film
RV18	76	VRCPTV6--393J-U	39K	ohm	1/6W	5%	Carbon Film
RV19	13	VRCPTV6--563J-U	56K	ohm	1/6W	5%	Carbon Film
RV20	65	VRCPTV6--822J-U	8.2K	ohm	1/6W	5%	Carbon Film
RV21,V22,V24	07	VRCPTV6--222J-U	2.2K	ohm	1/6W	5%	Carbon Film
RV23	10	VRCPTV6--103J-U	10K	ohm	1/6W	5%	Carbon Film
RV25	80	VRMPTV2--100J-U	10	ohm	1/2W	5%	Metal Film
RV26,V27	56	VRCPTV6--820J-U	82	ohm	1/6W	5%	Carbon Film
RV29,V34	27	VRCPTV6--122J-U	1.2K	ohm	1/6W	5%	Carbon Film
RV30,V31	38	VRCPTV6--683J-U	68K	ohm	1/6W	5%	Carbon Film
RV32	03	VRCPTV6--123J-U	12K	ohm	1/6W	5%	Carbon Film
RV35,V36	83	VRMPTV2--560J-U	56	ohm	1/2W	5%	Metal Film
RV37,V38	13	VRMPTV2--2R7J-U	2.7	ohm	1/2W	5%	Metal Film
RV39	83	VRNMK02--331J--	330	ohm	1/2W	5%	Metal Oxide Film
RV40	16	VRNMK02--392J--	3.9K	ohm	2W	5%	Metal Oxide Film
RV41	30	VRCPTV6--333J-U	33K	ohm	1/6W	5%	Carbon Film
RV42	51	VRCPTV6--273J-U	27K	ohm	1/6W	5%	Carbon Film
U	02	QCNWS0305-1179-	Connector With Wire				
U1	46	QCNWS0302-1290-	Connector With Wire				
“U”	63	VCNCP0302-EJST-	Connector				
	70	PRDAM0032-1P---	RADIATOR QV11,V12 USE				
	44	XJASD30P08000--	QV11,V12 USE				

5.AV & YUV BOARD

AV & YUV	**73**	**QPWB51087-1G--- AV & YUV PWB**				
C802,803,804	53	**VCEACU1HG106M-P**	10uF	50V	±20%	Aluminum Elect
C806,807,808	53	**VCEACU1HG106M-P**	10uF	50V	±20%	Aluminum Elect
C809,810,812	53	**VCEACU1HG106M-P**	10uF	50V	±20%	Aluminum Elect
C811	21	**VCEACU1CG477M-P**	470uF	16V	±20%	Aluminum Elect
C813,827,828	53	**VCEACU1HG106M-P**	10uF	50V	±20%	Aluminum Elect
C814,801,817	53	**VCEACU1HG106M-P**	10uF	50V	±20%	Aluminum Elect
C816,805,815	53	**VCEACU1HG106M-P**	10uF	50V	±20%	Aluminum Elect
C818,887,8A5	45	**VCEACU1CG476M-P**	47uF	16V	±20%	Aluminum Elect
C821,8C9	28	**VCDCDU1HH121J-P**	120P	50V	±5%	Temp. Comp. Ceramic
C822	22	**VCDCDU1HH330J-P**	33P	50V	±5%	Temp. Comp. Ceramic
C823,880,8M5	**77**	**VCEACU1HG105M-P**	**1uF**	**50V**	**±20%**	**Aluminum Elect**
C824,820	68	**VCDCDU1HH390J-P**	39P	50V	±5%	Temp. Comp. Ceramic
C832,846,847	53	**VCEACU1HG106M-P**	10uF	50V	±20%	Aluminum Elect
C833,834,831	53	**VCEACU1HG106M-P**	10uF	50V	±20%	Aluminum Elect
C835,837,838	38	**VCLRHN1HB103K-A**	0.01uF	50V	±10%	High Diel. Chip Capacitor
C839,840,850	38	**VCLRHN1HB103K-A**	0.01uF	50V	±10%	High Diel. Chip Capacitor
C841,8M1,8A2	53	**VCEACU1HG106M-P**	10uF	50V	±20%	Aluminum Elect
C842,843,845	77	**VCEACU1HG105M-P**	1uF	50V	±20%	Aluminum Elect
C848,851	53	**VCEACU1HG106M-P**	10uF	50V	±20%	Aluminum Elect
C849,8N7,8P6	53	**VCEACU1HG106M-P**	10uF	50V	±20%	Aluminum Elect
C854	84	**VCDCDU1HH120J-P**	12P	50V	±5%	Temp. Comp. Ceramic
C855	18	**VCDCDU1HH150J-P**	150P	50V	±5%	Temp. Comp. Ceramic
C856	81	**VCPELU1HG222J-P**	2200PF	50V	±5%	Polypropylene Film
C857	74	**VCEACU1HG224M-P**	0.22uF	50V	±20%	Aluminum Elect
C858,864,875	38	**VCLRHN1HB103K-A**	0.01uF	50V	±10%	High Diel. Chip Capacitor
C859	40	**VCEACU1CG337M-P**	330uF	16V	±20%	Aluminum Elect
C860	18	**VCMECU1JG104J-P**	0.1uF	63V	±5%	Metal Ploy. Film
C861,866,870	50	**VCEACU1HG225M-P**	2.2uF	50V	±20%	Aluminum Elect
C862,867,876	20	**VCEACU1CG107M-P**	100uF	16V	±20%	Aluminum Elect
C863	64	**VCDCDU1HH220J-P**	220P	50V	±5%	Temp. Comp. Ceramic
C865	57	**VCPELU1HG223J-P**	0.022uF	50V	±5%	Polypropylene Film
C868	71	**VCKBDU1HY561K-P**	560PF	50V	±10%	High Diel. Ceramic
C869,8V3,8V4	78	**VCEACU1HG475M-P**	4.7uF	50V	±20%	Aluminum Elect
C871,879,884	50	**VCEACU1HG225M-P**	2.2uF	50V	±20%	Aluminum Elect
C872,873,874	12	**VCEACU1HG104M-P**	0.1uF	50V	±20%	Aluminum Elect
C877	77	**VCEACU1HG105M-P**	1uF	50V	±20%	Aluminum Elect
C878,8A3,8C6	20	**VCEACU1CG107M-P**	100uF	16V	±20%	Aluminum Elect
C881,882,883	18	**VCMECU1JG104J-P**	0.1uF	63V	±5%	Metal Ploy. Film
C885,8A0,8V1	50	**VCEACU1HG225M-P**	2.2uF	50V	±20%	Aluminum Elect
C886,8A1,8C0	38	**VCLRHN1HB103K-A**	0.01uF	50V	±10%	High Diel. Chip Capacitor
C888	17	**VCKBDU1HY222K-P**	2200PF	50V	±10%	High Diel. Ceramic
C890,891,836	18	**VCKBDU1HY181K-P**	180PF	50V	±10%	High Diel. Ceramic
C8A4	35	**VCDCDU1HH101J-P**	100P	50V	±5%	Temp. Comp. Ceramic
C8A7	69	**VCKBDU1HY471K-P**	470PF	50V	±10%	High Diel. Ceramic
C8C1,8C4,8C5	38	**VCLRHN1HB103K-A**	0.01uF	50V	±10%	High Diel. Chip Capacitor
C8C2,8C3,844	17	**VCEACU1CG226M-P**	22uF	16V	±20%	Aluminum Elect
C8C7,8N4,8P1	20	**VCEACU1CG107M-P**	100uF	16V	±20%	Aluminum Elect
C8C8,8N8	38	**VCLRHN1HB103K-A**	0.01uF	50V	±10%	High Diel. Chip Capacitor
C8E1,8E2,8E3	33	**VCICHN1HH220J-A**	22PF	50V	±5%	High Diel. Chip Capacitor
C8E4,8E5,8E6	04	**VCICHN1HH101J-A**	100PF	50V	±5%	High Diel. Chip Capacitor
C8J4,8J5,8J6	05	**VCLRHN1CB104K-A**	0.1uF	16V	±10%	High Diel. Chip Capacitor
C8J7,8J8,8J9	05	**VCLRHN1CB104K-A**	0.1uF	16V	±10%	High Diel. Chip Capacitor

C8K0,8K1	44	VCKBDU1HY102K-P	1000PF	50V	±10%	High Diel. Ceramic
C8M0,8M3	45	VCEACU1CG476M-P	47uF	16V	±20%	Aluminum Elect
C8M2,8M4	13	VCEACU1HG474M-P	0.47uF	50V	±20%	Aluminum Elect
C8M6,8M7	77	VCEACU1HG105M-P	1uF	50V	±20%	Aluminum Elect
C8M8,8M9	75	VCLFHN1CY474M-A	0.47uF	16V	±20%	High Diel. Chip Capacitor
C8N0,8N1,8N2	05	VCLRHN1CB104K-A	0.1uF	16V	±10%	High Diel. Chip Capacitor
C8N5,8N6	33	VCICHN1HH220J-A	22PF	50V	±5%	High Diel. Chip Capacitor
C8P2,819,889	82	VCEACU1CG227M-P	220uF	16V	±20%	Aluminum Elect
C8P3,8V2	20	VCEACU1CG107M-P	100uF	16V	±20%	Aluminum Elect
C8P4	82	VCEACU1CG227M-P	220uF	16V	±20%	Aluminum Elect
C8P8,8V5	53	VCEACU1HG106M-P	10uF	50V	±20%	Aluminum Elect
CY02	60	VCICHN1HH100J-A	10PF	50V	±5%	High Diel. Chip Capacitor
D801,802,803	19	VSDRLS4148----A	Diode		RLS4148	
D804,805,806	19	VSDRLS4148----A	Diode		RLS4148	
D807,808,809	19	VSDRLS4148----A	Diode		RLS4148	
D810	19	VSDRLS4148----A	Diode		RLS4148	
D811	19	VSDRLS4148----A	Diode		RLS4148	
IC801	63	VSITA1276AN----	IC			TA1276AN
IC802	57	VSIM52055FP---A	IC			M52055FP
IC804	84	VSINJM7805FA---	IC			NJM7805FA
IC804,805	30	ZSLCN-SG841----				
IC805		VSINJM7809FA---	IC			NJM7809FA
IC806	81	VSIM52472P-----	IC			M52472P
IC807	08	VSITC9090AN----	IC			TC9090AN
IC808,809	05	VSIHEF4052BT--A	IC			HEF4052BT
IC810	34	VSINJM2234D----	IC			NJM2234D
IC812	43	VSI74HC4538D--A	IC			74HC4538D
IC813	57	VSIM52055FP---A	IC			M52055FP
IC814	26	VSI74LS125----A	IC			74LS125
IC816	70	VSITA8772AN----	IC			TA8772AN
IC8V1	14	VSIUPC1406-----	IC			UPC1406
L801,802,805	28	VL-DH101K0000-U	Peaking coil		100uH	
L803	43	VL-DH150K0000-U	Peaking coil		15uH	
L804	67	VL-DH100K0000-U	Peaking coil		10uH	
L806	28	VL-DH101K0000-U	Peaking coil		100uH	
L807	67	VL-DH100K0000-U	Peaking coil		10uH	
PWB	48	ZSOLDW500-1R6--				
Q801,802,803	01	VST2SC1815Y---P	Transistor			2SC1815Y
Q804,809,810	01	VST2SC1815Y---P	Transistor			2SC1815Y
Q805,806,807	82	VSIDTC144ES---P	IC			DTC144ES
Q811,812,819	82	VSIDTC144ES---P	IC			DTC144ES
Q813,814,815	87	VST2SA1015Y---P	Transistor			2SA1015Y
Q816,831	01	VST2SC1815Y---P	Transistor			2SC1815Y
Q818	87	VST2SA1015Y---P	Transistor			2SA1015Y
Q820,821	19	VST2SC2412KBQ-A	Transistor			2SC2412KBQ
Q822,832	82	VSIDTC144ES---P	IC			DTC144ES
Q8V1,8V2	86	VSTDTC363ES---P	Transistor			DTC363ES
R801,808,818	33	VRMHNVG--750J-A	75	ohm	1/8W 5%	Metal Film
R802,807,809	81	VRMHNVG--101J-A	100	ohm	1/8W 5%	Metal Film
R803,805,814	09	VRMHNVG--104J-A	100K	ohm	1/8W 5%	Metal Film
R804,811,813	58	VRMHNVG--472J-A	4.7K	ohm	1/8W 5%	Metal Film
R810,812,828	09	VRMHNVG--104J-A	100K	ohm	1/8W 5%	Metal Film
R815,838,841	58	VRMHNVG--472J-A	4.7K	ohm	1/8W 5%	Metal Film
R816,837,840	09	VRMHNVG--104J-A	100K	ohm	1/8W 5%	Metal Film
R817,806	35	VRCPTV6--472J-U	4.7K	ohm	1/6W 5%	Carbon Film

R819	08	**VRMHNVG--151J-A**	150	ohm	1/8W 5%	Metal Film
R820,847,850	81	**VRMHNVG--101J-A**	100	ohm	1/8W 5%	Metal Film
R821,823,855	06	**VRMHNVG--223J-A**	22K	ohm	1/8W 5%	Metal Film
R822,860,861	30	**VRMHNVG--222J-A**	2.2K	ohm	1/8W 5%	Metal Film
R824	07	**VRCPTV6--222J-U**	2.2K	ohm	1/6W 5%	Carbon Film
R825,826,8A6	34	**VRMHNVG--473J-A**	47K	ohm	1/8W 5%	Metal Film
R829,831,832	09	**VRMHNVG--104J-A**	100K	ohm	1/8W 5%	Metal Film
R842,848	84	**VRMHNVG--561J-A**	560	ohm	1/8W 5%	Metal Film
R843,886,895	57	**VRMHNVG--102J-A**	1K	ohm	1/8W 5%	Metal Film
R844,882,884	57	**VRMHNVG--102J-A**	1K	ohm	1/8W 5%	Metal Film
R845,8C7	23	**VRMHNVG--821J-A**	820	ohm	1/8W 5%	Metal Film
R846,849,8C0	54	**VRMHNVG--221J-A**	220	ohm	1/8W 5%	Metal Film
R851,852,853	30	**VRMHNVG--222J-A**	2.2K	ohm	1/8W 5%	Metal Film
R857,858,8A2	60	**VRMHNVG--562J-A**	5.6K	ohm	1/8W 5%	Metal Film
R862,863,864	33	**VRMHNVG--750J-A**	75	ohm	1/8W 5%	Metal Film
R865,866,867	33	**VRMHNVG--750J-A**	75	ohm	1/8W 5%	Metal Film
R868,Y07	09	**VRMHNVG--104J-A**	100K	ohm	1/8W 5%	Metal Film
R869,8A0,8F2	06	**VRMHNVG--223J-A**	22K	ohm	1/8W 5%	Metal Film
R870	72	**VRMHNVG--183J-A**	18K	ohm	1/8W 5%	Metal Film
R871,874	12	**VRMHNVG--331J-A**	330	ohm	1/8W 5%	Metal Film
R872,875,883	33	**VRMHNVG--103J-A**	10K	ohm	1/8W 5%	Metal Film
R873	82	**VRMHNVG--303J-A**	30K	ohm	1/8W 5%	Metal Film
R877	58	**VRMHNVG--391J-A**	390	ohm	1/8W 5%	Metal Film
R878,8F4,8T1	30	**VRMHNVG--222J-A**	2.2K	ohm	1/8W 5%	Metal Film
R879,880,897	81	**VRMHNVG--101J-A**	100	ohm	1/8W 5%	Metal Film
R885,887,888	57	**VRMHNVG--102J-A**	1K	ohm	1/8W 5%	Metal Film
R889,893,894	57	**VRMHNVG--102J-A**	1K	ohm	1/8W 5%	Metal Film
R890,891,892	73	**VRMHNVG--152J-A**	1.5K	ohm	1/8W 5%	Metal Film
R896,859	88	**VRMHNVG--822J-A**	8.2K	ohm	1/8W 5%	Metal Film
R898,876	77	**VRMHNVG--332J-A**	3.3K	ohm	1/8W 5%	Metal Film
R8A1,8A8,8A9	33	**VRMHNVG--103J-A**	10K	ohm	1/8W 5%	Metal Film
R8A3,8A5,8J6	58	**VRMHNVG--472J-A**	4.7K	ohm	1/8W 5%	Metal Film
R8A4,8E5,8E1	61	**VRMHNVG--683J-A**	68K	ohm	1/8W 5%	Metal Film
R8A7,8J1,Y08	34	**VRMHNVG--473J-A**	47K	ohm	1/8W 5%	Metal Film
R8C1	54	**VRMHNVG--221J-A**	220	ohm	1/8W 5%	Metal Film
R8C2,8C3,8C4	33	**VRMHNVG--103J-A**	10K	ohm	1/8W 5%	Metal Film
R8C5,8C6,8H2	33	**VRMHNVG--103J-A**	10K	ohm	1/8W 5%	Metal Film
R8C8,8E9	26	**VRMHNVG--123J-A**	12K	ohm	1/8W 5%	Metal Film
R8C9	42	**VRMHNVG--752J-A**	7.5	ohm	1/8W 5%	Metal Film
R8E3	07	**VRMHNVG--182J-A**	1.8K	ohm	1/8W 5%	Metal Film
R8E4	50	**VRMHNVG--122J-A**	1.2K	ohm	1/8W 5%	Metal Film
R8F3	49	**VRMHNVG--153J-A**	15K	ohm	1/8W 5%	Metal Film
R8F5	33	**VRMHNVG--103J-A**	10K	ohm	1/8W 5%	Metal Film
R8F8,8F7,8F6	57	**VRMHNVG--102J-A**	1K	ohm	1/8W 5%	Metal Film
R8H1,8J3,Y15	57	**VRMHNVG--102J-A**	1K	ohm	1/8W 5%	Metal Film
R8H3,8H4,8H5	51	**VRMHNVG--000J-A**	0	ohm	1/8W 5%	Metal Film
R8H6,8V2	48	**VRMHNVG--100J-A**	10	ohm	1/8W 5%	Metal Film
R8H7,8H8,8H9	09	**VRMHNVG--104J-A**	100K	ohm	1/8W 5%	Metal Film
R8J0	76	**VRMHNVG--680J-A**	68	ohm	1/8W 5%	Metal Film
R8J2	79	**VRMHNVG--820J-A**	82	ohm	1/8W 5%	Metal Film
R8J4	53	**VRMHNVG--333J-A**	33K	ohm	1/8W 5%	Metal Film
R8J5,8J7	09	**VRMHNVG--104J-A**	100K	ohm	1/8W 5%	Metal Film
R8J8,8V3,8V4	58	**VRMHNVG--472J-A**	4.7K	ohm	1/8W 5%	Metal Film
R8P1	30	**VRNMK01--5R6J--**	5.6	ohm	1W 5%	Metal Oxide Film
R8P2	64	**VRNMK01--330J--**	33	ohm	1W 5%	Metal Oxide Film

R8V1	57	VRMHNVG--102J-A	1K	ohm	1/8W 5%	Metal Film
RJ1,J2,J3	51	VRMHNVG--000J-A	0	ohm	1/8W 5%	Metal Film
RJ4	51	VRMHNVG--000J-A	0	ohm	1/8W 5%	Metal Film
RY04	33	VRMHNVG--103J-A	10K	ohm	1/8W 5%	Metal Film
RY05	06	VRMHNVG--223J-A	22K	ohm	1/8W 5%	Metal Film
RY06,856	85	VRMHNVG--682J-A	6.8K	ohm	1/8W 5%	Metal Film
RY10,Y11,Y12	30	VRMHNVG--222J-A	2.2K	ohm	1/8W 5%	Metal Film
RY13	30	VRMHNVG--222J-A	2.2K	ohm	1/8W 5%	Metal Film
RY14,8E6	60	VRMHNVG--562J-A	5.6K	ohm	1/8W 5%	Metal Film
S-VIDEO 3	60	QSOCD1557-107--				
X801 (4.43M)	43	RCRSL1034-1----	Crystal		4.43MHz	
X802 (3.58M)	41	RCRSL1025-1----	Crystal		3.58MHz	
X803 (503K)	30	ROSCC1026-1----	Crystal		503KHz	
ZD801,802,803	64	VSZMTZJ5.1B--U	Zener Diode			MTZJ5.1B
ZD806,807,808	64	VSZMTZJ5.1B--U	Zener Diode			MTZJ5.1B
ZD809,812,813	64	VSZMTZJ5.1B--U	Zener Diode			MTZJ5.1B
ZD814,815,816	64	VSZMTZJ5.1B--U	Zener Diode			MTZJ5.1B
ZD814A,815A,8	64	VSZMTZJ5.1B--U	Zener Diode			MTZJ5.1B
ZD817,818,819	64	VSZMTZJ5.1B--U	Zener Diode			MTZJ5.1B
ZD817A,818A,8	64	VSZMTZJ5.1B--U	Zener Diode			MTZJ5.1B
ZD820,821,822	64	VSZMTZJ5.1B--U	Zener Diode			MTZJ5.1B
ZD820A,821A,8	64	VSZMTZJ5.1B--U	Zener Diode			MTZJ5.1B
ZD823,823A	64	VSZMTZJ5.1B--U	Zener Diode			MTZJ5.1B
"CT"	67	QCNWP0092-1042-				
"DB"	12	VCNCP030B-EJST-	Connector			
"FR1"	26	VCNCP0309-EJST-	Connector			
"GND"	50	QCNCP1517-1----				
"PI"	30	VCNCP030A-EJST-	Connector			
"SF" "PS"	45	VCNCP0303-EJST-	Connector			
"TA1"	42	QCNCP1620-114--				
"TA1"	75	VCNCS107ERJJST-	Connector			
"TM"	80	VCNCP0306-EJST-	Connector			
"TM1"	53	VCNCS1078SJJST-	Connector			
"U"	63	VCNCP0302-EJST-	Connector			
	46	XBPSD30P06000--	SCREW		AV PWB USE	
	39	XBPSD30P10000--	SCREW		IC804 805 USE	
	01	PISLF0053-1P---	LANGP0182			
	72	PISLF0054-1P---	LANGP0182			
	01	PISLV0129-1P---	LANGP0182			
	37	LANGP0182-1P--A	TUNER			
	56	PRDAA0143-1P--D	RADIATOR			
	31	QJAKP1158-1-6-A	YUV-AUDI			
	01	QJAKP1158-1-6-B	YUV JACK			
	35	QJAKP1159-1-4-B	S-AUDIO,A			
	73	QPWB51087-1G---	AV BOARD			
	86	QPWB51088-1B---	TRANS			
	60	ZEPOX-SOMIR200-				
	49	ZFLUXNCF150V---				
	15	ZSOLDB630------				
	71	ZTHNR-4520-----				

6. SYNC ON GREEN BOARD

PWB	71	QPWB51093-1B---	SYNC-ON- GREEN PWB				
C-S01,S02	13	VCEACU1EG476M-P	47uF	25V		20%	Aluminum Elect.
C-S03	28	VCDCDU1HH121J-P	120PF	50V		5%	Temp. Comp. Ceramic
C-S04	08	VCDCDU1HH221J-P	220PF	50V		5%	Temp. Comp. Ceramic
C-S05	45	VCKBDU1HY472K-P	4700PF	50V		10%	High Diel. Ceramic
C-S06	23	VCPELU1HG683J-P	0.068uF	50V		5%	Polypropylene Film
C-S07	53	VCEACU1HG106M-P	10uF	50V		20%	Aluminum Elect.
C-S08	20	VCKBDU1HY103K-P	0.01uF	50V		10%	High Diel. Ceramic
C-S09,S10,S1	78	VCEACU1HG475M-P	4.7uF	50V		20%	Aluminum Elect.
C-S11	77	VCEACU1HG105M-P	1uF	50V		20%	Aluminum Elect.
C-S12,S16	74	VCDCDU1HH181J-P	180PF	50V		5%	Temp. Comp. Ceramic
C-S14	68	VCDCDU1HH390J-P	39PF	50V		5%	Temp. Comp. Ceramic
D-S01,S02	89	VSD1N4148-----U	Diode	1N4148			
ICS01	31	VSIM52346SP----	IC	M52346SP			
ICS02	03	VSI4053BP------	IC	4053BP			
Q-S01	01	VST2SC1815Y---P	Transistor	2SC1815Y			
R-S01	21	VRNMK01--390J--	39	ohm	1W	5%	Metal Oxide Film
R-S02	89	VRMMTV2--271J-U	270	ohm	1/2W	5%	Metal Film
R-S03,S04	54	VRCPTV6--332J-U	3.3K	ohm	1/6W	5%	Carbon Film
R-S05	26	VRCPTV6--153J-U	15K	ohm	1/6W	5%	Carbon Film
R-S06	76	VRCPTV6--393J-U	39K	ohm	1/6W	5%	Carbon Film
R-S07	72	VRCPTV6--223J-U	22K	ohm	1/6W	5%	Carbon Film
R-S08	75	VRCPTV6--104J-U	100K	ohm	1/6W	5%	Carbon Film
R-S09,S10	13	VRCPTV6--563J-U	56K	ohm	1/6W	5%	Carbon Film
R-S11	50	VRCPTV6--152J-U	1.5K	ohm	1/6W	5%	Carbon Film
R-S12,S13	34	VRCPTV6--102J-U	1K	ohm	1/6W	5%	Carbon Film
R-S14	11	VRCPTV6--392J-U	3.9K	ohm	1/6W	5%	Carbon Film
ZDS01	47	VSZMTZJ12B----U	Zener	MTZJ12B			
ZDS02	64	VSZMTZJ5.1B---U	Zener	MTZJ5.1B			
“MV6”	10	LFIX-0002-1F---	Connecto				
“SN”	15	VCNCP480ARJVEN-	Connecto				

7. CS PWB

CS PWB	01	QPWB51064-1B-3-	CS PWB			
C383,384	29	VCENCT1EG475M-P	4.7uF	25V	± 20%	Aluminum Elect.
C608	12	VCMPHF2GG274J--	.27uF	400V	± 5%	Metal Ploy. Film
C609	52	VCMPHF2GG155J--	1.5uF	400V	± 5%	Metal Ploy. Film
C610	15	VCMPHF2GG224J--	.22uF	400V	± 5%	Metal Ploy. Film
C611	02	VCPPHF2JG563J--	.056uF	630V	± 5%	Polypropylene Film
C685	27	VCPPHF2JG683J--	.068uF	630V	± 5%	Polypropylene Film
C687	02	VCPPHF2JG563J--	.056uF	630V	± 5%	Polypropylene Film
“MV7”	40	LFIX-0018-1P---	FIX PLATE			
D	46	QCNCS1633-1----	Connector With Wire			
LO	56	QCNWP0092-1012-	Connector With Wire			
LO	66	QCNWP0092-1018-	Connector With Wire			
LO	08	QCNWS0092-1019-	Connector With Wire			
GND1	06	QCNWS0651-1066-	Connector With Wire			
“LI2”	47	VCNCP4807RJVEN-	Connector			

8. RS232 BOARD

PWB	68	QPWB51089-1B---	RS232 PWB			
C1,10	45	VCEACU1CG476M-P	47uF	16V	20%	Aluminum Elect
C11,12,13	78	VCLBHN1HY104K-A	0.1uF	50V	10%	High Diel. Chip Capacitir
C14,15	11	VCLBHN1HY181K-A	180PF	50V	10%	High Diel. Chip Capacitir
C2	77	VCEACU1HG105M-P	1uF	50V	20%	Aluminum Elect
C3,4	10	VCICHN1HH180J-A	18PF	50V	5%	High Diel. Chip Capacitir
C5	81	VCLBHN1HY331K-A	330PF	50V	10%	High Diel. Chip Capacitir
C8,9	52	VCENCU1HG105M-P	1uF	50V	20%	Aluminum Elect
D1	19	VSDRLS4148----A	Diode	RLS4148		
IC01	63	VSIMTV212MS64--	IC	MTV212MS64		
IC02	15	VSIHIN232CB-T-A	IC	HIN232CB		
R1,2	81	VRMHNVG--101J-A	100	ohm		Metal Film
R3,4	58	VRMHNVG--472J-A	4.7K	ohm		Metal Film
R5,6,12,13	68	VRMHNVG--330J-A	33	ohm		Metal Film
X1	10	RCRSL1179-1----	Crystal	11.0592MHz		
"RS"	59	VCNCP0315-EJST-	Connect	5PIN		
	76	QSOCI1517-142--	IC01 USE IC SOCKET			

9. LED PWB

PWB	69	QPWB51084-1B---	LED PWB			
C99	20	VCEACU1CG107M-P	100uF	16V	20%	Aluminum Elect
R94	25	VRCPTV6--100J-U	10	ohm	1/6W	Carbon Film
RC01	03	VSI93M2AKLSH---	R/C			
SW001	04	QSW-A1198-11-1-	SW			
LD001	02	VSPHB5-134-----	POWER SAVING LED			
LD002	76	VSPHB5-4063A---	POWER/STANDBY LED			
“B”	22	QCNWS0308-1072-	CONNECTOR & WIRE			

MMM Symptom Table

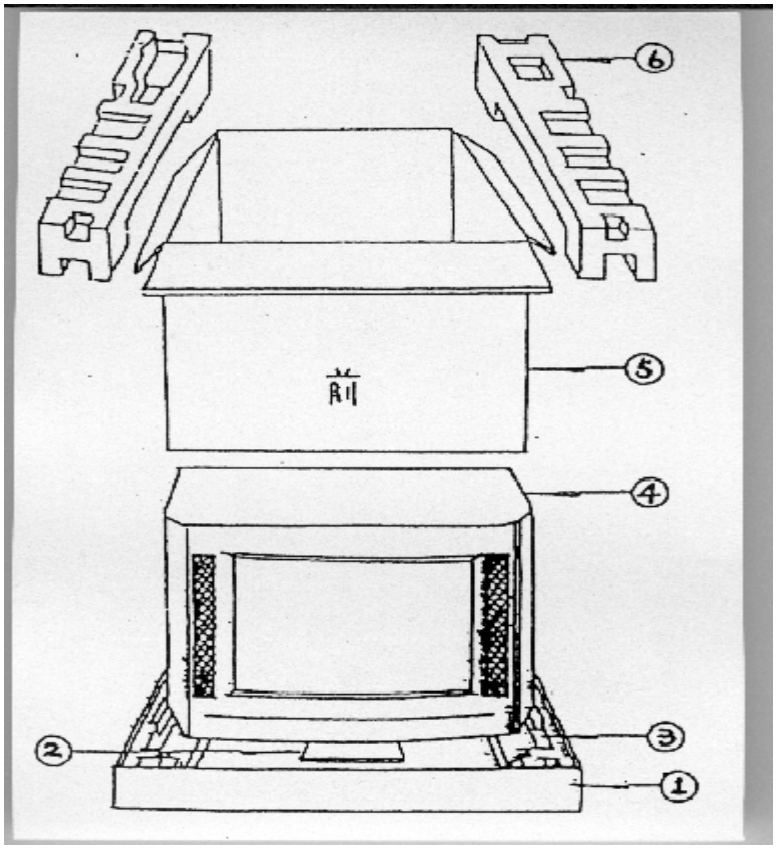
Bar code	sympton Table	Description	English Description
	M100	電源開機異常	No power
	M200	外觀不良	Poor Cosmetic
	M300	裝配不良	Poor Assembly
	M400	按鍵異常	Press Button Abnormal
	M500	聲音異常	Sound Abnormal
	M526	重低音不良	Poor Doom Function
	M600	調整異常	Poor Adjustment
	M700	亮度異常	Poor Brightness
	M800	影像異常	Poor Picture
	M826	影像跳火	Picture flash
	M900	聚焦異常	Poor focus
	MA00	收斂異常	Poor Convergence
	MB00	線性不良	Linearity Distortion
	MC00	消磁異常	Poor Degaussing
	MD00	消耗功率不良	Power Consumption out of spec
	ME00	水平異常	Poor Horizontal Scan
	MF00	垂直異常	Poor Vertical Scan
	MG00	PUR 異常	Poor Purity
	MH00	彩色異常	Color abnormal
	MI00	色溫不良	Poor Color temperature
	MJ00	背景異常	Background abnormal
	MK00	高壓異常	Hold down voltage abnormal
	ML00	LED 不良	LED Defect
	MM00	敲打不良	Shock Noise
	MN00	CRT 不良	CRT defect
	MO00	遙控異常	Infrared Receiver abnormal
	MP00	OSD 異常	No OSD
	M000	NDF	No Defect Found

MMM Root Cause Table

Bar code	Cause Table	Description	English Description
	*OA	未焊	Solder-Miss
	*OB	包焊	Cold Solderng
	*OC	流錫短路	SolderingShort
	*IB	斷線	Soldering Open
	*2A	未配	Missing Part
	*2B	誤配	Wrong PART
	*2C	極性反	Reversed polarity
	*2E	裝配不良	Assembly Defect
	*2F	插入不良	Inseration Defect
	*2J	人爲短路	Short by Manual
	*3C	傾斜	Part Tilt
	*4A	機構不良	Misformed
	*4B	調整不良	Installed Worng
	*4C	誤判	Incorrect Ruling
	*7C	開路	Open Trace
	*7F	零件不良	Part Defect
	*9E	銅箔短路	Short by copper foil
	*9F	銅箔開路	Open by copper foil
	*9H	其他	Other
	*OG	焊接不良	Poor Solder
	*1C	破皮	Part Damage
	*2G	接觸不良	Poor Contact
	*3H	空隙大	Gap too long
	WC01	客戶誤判	Customer Incorrect Ruling
	WC02	客戶設定錯誤	Customer setting wrong
	WC03	客戶使用不當	Customer improper use
	DR01	ROM 資料錯誤	ROM data error
	DR02	ROM 更新版本	ROM update new version
	DR03	ROM 重新燒錄	ROM rewrite again
	DR04	ROM 設定錯誤	ROM setting wrong
	WC04	NDF	No-Defect-Found

PACKING OF THE SET VER1.0

ITME	PART NO.	UNIT	REMARKS
1.	SPAKC0706-1R—D	1	
2.	ACCESSORIES	1	
3.	SPAKA0648-1F---	CROP	
4.	CTV SET	1	
5.	SPAKC0706-1R—D	1	
6.	SPAKA0648-1F---	CROP	



PACKING OF THE SET VER1.0

ITEM	PART NO.	UNIT	REMARKS
1.	SPAKC0706-1R—D	1	
2.	JHNDP0020-1----	4